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IMPERIAL MARITIME CUSTOMS

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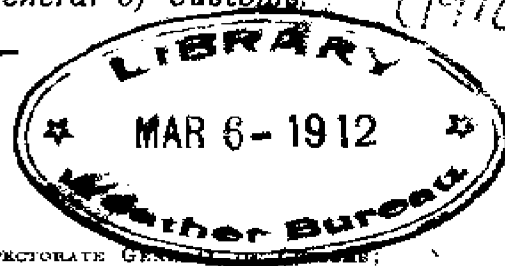
FOR THE HALF-YEAR ENDED 30TH SEPTEMBER 1904

TO

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INSPECTOR GENERAL'S CIRCULAR No. 19 of 1870.

INSPECTORATE GENERAL OF CUSTOMS,

PEKING, 31st December 1870.

SIR,

1.—It has been suggested to me that it would be well to take advantage of the circumstances in which the Customs Establishment is placed, to procure information with regard to disease amongst foreigners and natives in China; and I have, in consequence, come to the resolution of publishing half-yearly in collected form all that may be obtainable. If carried out to the extent hoped for, the scheme may prove highly useful to the medical profession both in China and at home, and to the public generally. I therefore look with confidence to the co-operation of the Customs Medical Officer at your port, and rely on his assisting me in this matter by framing a half-yearly Report containing the result of his observations at.....upon the local peculiarities of disease, and upon diseases rarely or never encountered out of China. The facts brought forward and the opinions expressed will be arranged and published either with or without the name of the physician responsible for them, just as he may desire.

2.—The suggestions of the Customs Medical Officers at the various ports as to the points which it would be well to have especially elucidated, will be of great value in the framing of a form which will save trouble to those members of the medical profession, whether connected with the Customs or not, who will join in carrying out the plan proposed. Meanwhile I would particularly invite attention to—

- a.—The general health of.....during the period reported on; the death rate amongst foreigners; and, as far as possible, a classification of the causes of death.
- b.—Diseases prevalent at.....
- c.—General type of disease; peculiarities and complications encountered; special treatment demanded.

- d.*—Relation of disease to { Season.
Alteration in local conditions—
such as drainage, etc.
Alteration in climatic conditions.
- e.*—Peculiar diseases, especially leprosy.
- f.*—Epidemics: { Absence or presence.
Causes.
Course and treatment.
Fatality.

Other points, of a general or special kind, will naturally suggest themselves to medical men; what I have above called attention to will serve to fix the general scope of the undertaking.

* * * * *

3.—Considering the number of places at which the Customs Inspectorate has established offices, the thousands of miles north and south and east and west over which these offices are scattered, the varieties of climate, and the peculiar conditions to which, under such different circumstances, life and health are subjected, I believe the Inspectorate, aided by its Medical Officers, can do good service in the general interest in the direction indicated; and, as already stated, I rely with confidence on the support and assistance of the Medical Officer at each port in the furtherance and perfecting of this scheme. You will hand a copy of this Circular to Dr., and request him, in my name, to hand to you in future, for transmission to myself, half-yearly Reports of the kind required, for the half-years ending 31st March and 30th September—that is, for the Winter and Summer seasons.

4.— * * * * *

I am, etc.,

(Signed) **ROBERT HART,**
Inspector General.

To

THE COMMISSIONERS OF CUSTOMS.

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REPORT ON THE HEALTH OF HOIHOW FOR THE YEAR ENDED 31ST OCTOBER 1904.

By H. M. McCANDLISS, M.D.

Several of the foreign children have had measles, and amongst those who have been living at the Hoihow Light Station there has been some malarial fever. There have been several cases of whooping-cough. In other respects the general health of the foreign community has been good. Facilities for out-of-door sports have contributed much toward the general well-being of the staff.

In the native community there have been none of the terrible epidemics of years past, and whereas during the plague years the population had to be recruited from the country and adjacent sea-port towns, it has well held its own for the past two years. The French dispensary has continued its ministrations in Hoihow and in Kiungchow, both under Dr. Feray, and the American Presbyterian Hospital in Hoihow has been continued under Dr. McCandliss.

Of mycetoma or fungus foot there have been four cases—all women, and in each patient the disease has been confined to a single foot and not extending into the leg bones. If it were not for the intense prejudice against the deformity, amputation would be the proper and radical treatment. In one woman of sixty-two, in whom locomotion is not now so important a factor as in the days of her working life, all the soft bones of the foot and part of the os calcis were removed with chisel and scoop. Repair has been very tedious, partly owing to the frequent strong antiseptic solutions forced through the drainage tubes to obviate a recrudescence of the disease. A much younger woman's foot was dealt with after the same manner, but not so extensively, and a second operation will be necessary. The third and fourth cases have been treated by a sharp irrigating spoon following the sinuses, and subsequent daily irrigation. Owing to the general structure of the foot bones there is always an admirable chance for some of the fungus to remain in some unexplored crevice and propagate. In the above four cases tonic treatment has been pushed to the limit.

The region to the east of Hoihow seems to be rich in vesical calculi, and it looks as if a large harvest is to be reaped in the future. During the year, and according to the nature of the case, we have done litholapaxy and the lateral and suprapubic operations. It may be well to mention that we have had no deaths from any surgical operations during the last three years. In two cases where the crushing operation was used it was considered wise to extend the procedure over two or three sittings at intervals of ten days.

We have had fewer cataracts and more of those desperate cases of entropion, where all four lids have to be operated on. If the condition has been of many years' standing, the cornea may be full of scar tissue from long-continued irritative keratitis, or the cornea may be covered with opaque fibrous membrane. In other cases, however, the firmness of the cornea rapidly subsides and the patient is delighted with his restored vision. Frequently granular lids are associated and require several rubbings with bluestone.

There has been the usual crop of enlarged spleens, thirty-three of the in-patients having spleens that either reached to the median line or else passed beyond it. During the first week the patient has fifteen grains of *quinine* daily, after which the routine treatment of *quinine*, *iron*, and *arsenic* is pursued. Although it is the custom to either paint weak *tincture of iodine* over the spleen, or else to rub in some of the red *iodide ointment*, we do not expect it to do much more than satisfy the patient that he is having something done for the outside also. We would like to push the *arsenic* treatment more, but the natives here bear *arsenic* badly, and even the small doses have to be watched, lest blood and mucus appear in the stools. Once or twice a week the maximum dose of *quinine* is again given. These patients are apt to remain with us about two months and then take some medicine home with them to complete the cure. While the very chronic cases are not expected to decrease much in size, the comparatively recent cases do so. Whereas the conjunctiva, face, and hands have been yellow and muddy, the urine reddish, the blood pale and watery, and the whole system weak and debilitated, we soon find all these conditions changed, and the languid, sick expression is lost, and the patient assumes an appearance of well-being. Four of these spleen cases came to the hospital not because of the enlarged spleens, but because of the serious nose bleed with which they so frequently suffered. We are very careful not to perform any operation involving the loss of blood, even if it be but the extraction of

a tooth, if we know that the spleen is enlarged, as several experiences in the past have taught us the possibilities of uncontrollable hemorrhage. We have not only to separate these enlarged spleens from other cases, but as an additional precaution several attendants go around every night with butterfly nets and catch such mosquitoes as are to be found in the wards. In order to facilitate the finding of the mosquitoes the walls must be kept whitewashed. We would be glad to screen our malarial patients with mosquito nets, but we cannot prevail upon them to tuck the curtain in properly, so that not only does the net not protect from mosquitoes biting them and afterwards biting others, but the net, owing to ineradicable Chinese habits, soon becomes a very dirty ornament.

One of the spleen cases is that of a woman, not yet thirty, with an ovarian cyst. The enlarged spleen rules out a radical operation. The cyst was tapped and a little over 100 pounds of fluid was removed at the one sitting. This is the largest tumour we have seen in the island. Of course the tapping is merely palliative and will have to be repeated. In the meantime we are trying to reduce the size of the spleen. The treatment has to be suspended from time to time on account of a recurring nausea which seems to be a concomitant of the ovarian disease.

Although the natives of this part of China have frequent feast days in which they gorge themselves with food, there are many of them who, when taken month by month, are very much underfed. There are others who, on account of some taint as of syphilis or of tuberculosis, or of the depression and blood cell destruction of malaria, do not assimilate enough fat to keep them in good physical condition. During the year there have been about thirty cases of women and children with enlargement of the glands of the neck and armpits and enlargement of the joints. In these conditions a certain amount of *cod liver oil* is readily taken, but not being satisfied with what internal administration might do, we have daily used up nearly an ounce of ordinary olive oil by rubbing it into the armpits, flanks, and groin, and the improvement has been so conspicuous that this external treatment has been extended to all of those whose systems are markedly below par.

This matter of giving of oil rubs certainly takes time, but it is a duty which can be performed by the less intelligent of the attendants, and the patients have come to look upon it as being a very important

part of the treatment. The bad spleen cases are very much improved by the oil rubs. Several old women who were being treated for other affections, but who also had chronic bronchitis associated, have been charmed with the effect of rubbing with olive oil saturated with camphor. Four of the half-grown girls in the boarding-school, all of whom had coughs and two of whom had tubercle bacilli in the sputum, were ordered to be thoroughly rubbed with oil every night; and the improvement was rapid and satisfactory, two of them no longer requiring treatment, and the two with tubercle have now good chest expansion and swing on the ropes of the merry-go-round with zest.

There is even a stronger tendency with sick Chinese to treat themselves as invalids than there is with Europeans, and they are too willing to lie on their beds in the ward. For this reason swings have been put up in the yard, and, together with a half-dozen pairs of stilts and a giant-stride pole, they have played a part in weaning them from their indolence. Those who really cannot walk without helps are provided with crutches and encouraged to use them.

REPORT ON THE HEALTH OF MENGTSZ IN THE YEARS 1903 AND 1904.

By DR. G. BARBÉZIEUX.

LES INDIGÈNES ET LA MÉDECINE EUROPÉENNE, AU YUNNAN.

Les Chinois, si réfractaires encore, au moins dans les provinces éloignées de la mer, comme le Yunnan, aux idées et aux choses de l'Occident, commencent, cependant, grâce à un contact plus intime avec les Européens, à recourir à notre expérience et se montrent de plus en plus empressés à s'assimiler nos méthodes et nos procédés scientifiques.

Le Yunnan, à peine ouvert aux Européens, réputé, non sans raison, l'une des plus ignorantes provinces de l'Empire, s'ouvre lui-même, peu à peu, à la civilisation et l'on est frappé des progrès accomplis, au cours de ces dernières années, depuis, surtout, la venue des agents de la société de construction du chemin de fer, qui reliera bientôt Hanoi à Yunnan-sen, par Laokay et Mongtzé.

Au point de vue médical—le seul qui nous intéresse dans cette note,—nous voyons, de plus en plus, la clientèle chinoise envahir nos hôpitaux et nos cliniques, délaisser le médecin indigène, reconnu ignorant, et solliciter les conseils et les soins du médecin étranger.

À Yunnan-sen, où notre distingué confrère Delay a laissé le meilleur souvenir, l'activité du *trou petit* hôpital consulaire français est considérable et nous avons pu voir, au cours d'un récent voyage, à la consultation du Dr. Ayraud, de nombreux malades se remettre avec confiance entre les mains du médecin français, se prêter à de grandes opérations chirurgicales, comme la cure radicale de la hernie, du goître, des resections, des amputations, etc. Les Chinois ne font aucune difficulté pour reconnaître notre supériorité sur leurs médecins, sorciers, empiriques et rebouteux.

À la vérité, cette reconnaissance ne va pas sans quelque jalousie, sans quelque envie et, stimulés par l'amour-propre, les Chinois du Yunnan se mettent à construire des hôpitaux, pour l'établissement desquels les notables des villes sont fortement mis à contribution. Il y a un hôpital chinois à Yunnan-sen et l'on s'occupe d'en créer un autre à Mongtzé.

Même, pour ce dernier, le médecin du Consulat de France a été discrètement consulté et, il y a quelques jours à peine, le sous-préfet de la ville lui demandait si, le cas échéant, il consentirait à aider ses confrères chinois de ses conseils et de ses lumières. Le Taotai et le Préfet viennent, de temps à autre, visiter l'hôpital français de Mongtzé, s'intéressent à ce qu'on y fait et témoignent quelque satisfaction des soins donnés à leurs malades.

Il est vrai que l'organisation de l'assistance publique, l'établissement d'hôpitaux, d'asiles, ne constituent pas des idées nouvelles, en Chine. Nous sommes, ici, dans le pays où toutes les traditions, toutes les idées sont représentées; mais, cette représentation est nominale et assistance publique, hôpitaux, établissements de charité sont loin d'être des réalités.

Quoi qu'il soit, notre science médicale intéresse les Chinois, surtout notre thérapeutique. Ils voient, tous les jours, les effets incontestables de quelques-uns de nos médicaments et leurs médecins et leurs pharmaciens remplaceraient volontiers les remèdes chinois, si compliqués, si difficiles à prendre, par nos "drogues" européennes, s'ils connaissaient exactement l'usage de ces dernières, s'ils pouvaient les prescrire, dans des cas bien déterminées. En effet, la médecine chinoise, tout empirique, ne connaît guère que la symptomatologie des maladies et c'est contre le seul "symptôme" que se porte l'effort de l'empirique.

C'est donc une éducation à faire, mais intéressante, utile et pour laquelle nos Yunnanais paraissent déjà mûrs.

Depuis, tantôt, quatre années, à Mongtzé, plus de douze mille Chinois, tant à la consultation journalière, à l'hôpital, en ville, que dans la famille même, ont reçu les soins du médecin français—ce qui nous valut, au début, quelque mauvaise humeur d'un confrère chinois, dont toute la pharmacopée tenait dans un petit flacon mystérieux, portant cette simple et très modeste étiquette : *Remède d'Immortalité !* . . . Depuis, les choses se sont arrangées, bien que notre confrère, plus routinier que d'autres, plus attaché à la tradition, ne soit pas encore pleinement convaincu de l'efficacité des remèdes européens, qui n'exigent ni mélanges savants, ni combinaisons compliquées, ni incantations.

HOSPITALISATION DES INDIGÈNES.

En principe, le Chinois du Yunnan est réfractaire à l'hospitalisation. Il vient volontiers réclamer les soins du médecin étranger,

chercher des remèdes, mais il répugne à l'idée d'entrer à l'hôpital, où il est astreint à un régime sévère, à une discipline effective, où, enfin, il n'a pas son opium. Il ne vient donc chez nous que contraint et forcé, quand il a essayé tous les traitements, épuisé toutes ses ressources. *En réalité, depuis ces dernières années, les choses ont, déjà, bien changé et cette peur de l'hôpital, s'est singulièrement atténuée, depuis, surtout, que les coolies employés par la société de construction du chemin de fer sont évacués régulièrement sur les hôpitaux et les ambulances de la ligne.*

C'est ainsi que, du mois de janvier 1903 au mois de septembre 1904 une centaine de Chinois ont été hospitalisés à l'hôpital de Mongtze, fournissant, ensemble, un peu plus d'un millier de journées de présence. Le reste de la population indigente de l'hôpital est constitué par des Annamites, venus du Tonkin en qualité de "boys" et restés sans place; par des Européens, la plupart des Italiens, ou des Grecs, employés momentanément par la société, les entrepreneurs, ou les tâcherons du chemin de fer et que la maladie a réduits au chômage forcé et à la misère.

Chez les indigènes hospitalisés, ce sont les plaies, les affections chirurgicales qui forment le principal de la statistique hospitalière. Les troubles du mois de mai 1903 avaient peuplé l'hôpital de Mongtze de soldats blessés et confiés à nos soins par les autorités mandarinales elles-mêmes.

La fièvre typhoïde, qui existe à Mongtze à l'état endémique, nous a envoyé son contingent de malades; de même, le paludisme, qui, selon que je l'indiquais dans de précédents rapports, sévit dans notre région, en dépit de l'opinion professée par la plupart des voyageurs, qui jusqu'à présent, n'ont fait que traverser le Yunnan au pas de course.

Les affections gastro-intestinales, la dysentérie, la misère physiologique, si profonde à Mongtze, la lèpre, entrent également, pour une bonne part, dans le cadre des maladies traitées à l'hôpital consulaire français.

C'est au commencement de la saison des pluies (mois de mai) et aux approches de l'hiver (mois de novembre) que les maladies se montrent le plus fréquentes et le plus meurtrières.

Nous avons eu, en outre, cette année une légère épidémie de variole, qui a sévi principalement dans les faubourgs de Mongtze. Cette

épidémie n'a duré que quelques semaines et n'a fait aucune victime parmi la colonie européenne. Les mesures prophylactiques, prises immédiatement, les vaccinations et revaccinations ont rapidement enrayer la marche du fléau.

Nous constatons toujours l'absence de la peste à Mongtzé. Cette ville, où de nombreuses épidémies de peste ont éclaté autrefois, passait pour être le *foyer* chinois de cette redoutable maladie. Depuis quatre années, je n'ai, pour ma part, constaté que deux cas de peste à Mongtzé; encore, l'un de ces cas était-il importé du Koei-tcheou. La peste paraît donc avoir disparu de la région. Cependant, l'agglomération chinoise a augmenté et les conditions sociologiques ne se sont pas modifiées sensiblement. Les Yunnanais sont aussi pauvres, aussi ignorants, aussi sales et la ville de Mongtzé est le même cloaque qu'autrefois. En revanche, il semble, depuis quelques années, que les conditions climatologiques se soient légèrement transformées: c'est, du moins, l'opinion de beaucoup de personnes qui habitent la région depuis longtemps. Quoi qu'il en soit, la disparition de la peste—définitive ou momentanée—est un fait certain et qu'il était nécessaire d'indiquer.

REPORT ON THE HEALTH OF NEWCHWANG FOR THE
YEAR ENDED 30TH APRIL 1905.

By T. L. BRANDER, M.D.

During the year in which I held the temporary appointment of Customs doctor for the port of Newchwang, I am glad to report that the health of the foreign community there has been remarkably good. One resident died suddenly at Shanghai, where he had gone on business. There were two additions to the community by birth. There has been no epidemic of plague, small-pox, cholera, or other infectious disease, with the exception of a mild form of influenza, which went round nearly everyone. It was remarkable principally for the severe neuralgias *which accompanied it in several cases*. An American correspondent who had been staying in Newchwang for some weeks was accidentally shot dead while trying to get to Port Arthur on board a native junk. His body was brought to Newchwang. At the postmortem examination it was found that the bullet had penetrated the brain at the back of the head, smashing the bone into a great many pieces. Among the Customs staff one case of severe dysentery occurred. After three weeks in hospital he was discharged cured. Washing out the large intestine by means of a rubber catheter with a strong solution of *permanganate of potash*, along with *ipecacuanha* internally, did good.

Among the shipping community there was one severe case of typhoid fever in a young engineer, who eventually succumbed. One case of small-pox was removed from a British steamer, which came from Shanghai, to the infectious diseases hospital established by the Japanese administration. The patient was a Greek, and had contracted the disease where it had been raging for some time before the steamer left. After being in hospital about three weeks he was discharged cured. Several cases of death from charcoal fumes on board ship occurred. In one ship three men, Chinese stewards, shut themselves into a small four-berth cabin with a charcoal fire and went to sleep, and were found dead the next morning. On another ship one man died in a similar way. Three employes of the Chinese Imperial Railway at Yingkow station were also poisoned in this way, but two of them recovered, after getting them into fresh air and applying stimulation.

As the war was seen to be coming nearer our doors, a Red Cross and Refugee Aid Society was formed in Newchwang in connexion with the central society in Shanghai. Neither belligerent, however, needed our help for their own wounded, so our work was restricted to the care of Chinese wounded. The missionary doctors in the province placed their hospitals at the disposal of the society, who supplied them liberally with surgical dressings, antiseptics, and other hospital requisites. Our Newchwang hospital received and treated about thirty cases. Two native junks were blown up by mines in the Gulf of Pechili and the survivors were picked up, in one case by another junk, in the other by a steamer, and brought to Newchwang. Three of these men were treated in the Red Cross hospital for slight wounds all over the body caused by the explosion; one of the three, however, had his eyesight permanently injured. A number of children and young men were treated for injuries of fingers and hands, often needing amputation, due to the explosion of shell fuse which they had picked up and were carelessly examining. Several cases of bullet wounds were also treated after the battle of Tashihkiao, which place is distant about sixteen miles from Newchwang. The Chinese in that battle did not suffer very much. After the battle of Liaoyang, Dr. Westwater had over 300 Chinese wounded and Dr. Christie, in Moukden, had over 200.

At the time of Mistchenko's raid on Newchwang a carter found himself between the belligerents. Wishing to get away quietly, he yoked his horses in the dead of night and proceeded on his way. The Japanese guard, hearing the noise of the approaching cart and thinking it was a movement of the Russians, fired, killing one or two horses and wounding the carter. The bullet entered to the outside of the anterior superior spine of the ileum, scoring deeply the bone for three inches and then passed out. After an operation, in which a good many loose pieces of bone were removed and good drainage established, the wound healed up. As the Red Cross hospital at Newchwang did not have many wounded, it acted as a distributing centre for the other Red Cross hospitals up country.

Amongst my ordinary Chinese patients in the mission hospital at Newchwang there was an interesting case of bullet wound of the abdomen. The patient, a young lad, had been accidentally shot with a pistol. My colleague, Dr. Gordon, who was helping me for a few months at that time, opened the abdomen the next day, but could

find no injury of the intestines. The bullet was found lying loose in the bottom of the pelvis and was removed. The lad made a good recovery.

A case of popliteal aneurism was also operated upon by Dr. Gordon. The sac was exposed and opened and the artery tied above its entrance to the sac. The whole limb was wrapped in cotton wool and slightly elevated. After a day or two, however, gangrene commenced to set in, *owing to the cutting of the main blood supply to the leg, so it had to be amputated above the knee.* Although the man was about fifty years old he eventually made a good recovery, and with the aid of a wooden stump and crutches he was able to get about.

In Manchuria the largest proportion of our surgical cases are due to tuberculosis. The number of diseased glands of the neck and armpit from this cause is enormous. Women especially suffer from this disease. I believe the overcrowding and want of ventilation of their dwellings during the night is largely to blame for this state of things. Four to eight adults often sleep in a small room with windows and doors closed. A little knowledge of the good qualities of fresh air and cleanliness of the person would do much to get rid of this terrible scourge. Latterly I have been having three or four operations a week from this cause alone. During the year several cases of excision of the elbow joint, for tubercular disease, have done well, also a case of amputation of the thigh in a woman, for advanced tubercular disease of the knee. Several amputations of the leg were performed in cases of railway accident.

Two other cases I would like to record, although they happened a few days after the year closed. A young man was operated on for ununited fracture of the thigh, and amputation of the thigh was performed. The shock of the operation, however, was very great and we were afraid he would not pull through. The heart-beat was over 150 per minute and the pulse at the wrist could not be felt. Dr. Daly gave a saline injection of about seventy ounces into the loose tissues of the flanks. This undoubtedly saved his life. Injections of *strychnine* and the raising of the foot of the bed about sixteen inches, so that the blood gravitated towards the heart, also helped to pull him through the critical period. He is now making a good recovery. A case of tumour of the leg was also successfully removed. The tumour weighed nearly seventeen pounds and had been growing for over two years.

The statistics for the Newchwang hospital for last year are as follows:—

In-patients, 385; *operations*, 288; *dispensary new cases*, 6,194; *returns for medicine*, 4,515; *daily dressings (including those in hospital)*, 19,010; *cases of opium poisoning*, 30.

GENERAL REMARKS ON CLIMATIC CONDITIONS
PREVAILING IN CHANGSHA.

By H. G. BARRIE, M.D., C.M.

Changsha is situated on the Hsiang River, and is said to have derived its name from the presence of a long, narrow strip of sand (*ch'ang sha*, "long sand") which lies in the centre of the river and parallel with the entire length of the west wall of the city.

The city is an inland one, situated in the heart of China, geographically. It is found well within the hot climate zone, and its latitude is but slightly north of the 28th degree. While this location brings it almost as far south as the extreme northern limit of the so-called rainless area extending from the 16th to the 28th degree north of the equator, a considerable rainfall occurs annually, owing to local physical configurations and the nature of the prevailing winds; and, as might be expected, a fairly high mean annual temperature prevails throughout the year.

The Hsiang River fluctuates greatly according to the variations in the amount of rainfall among the hills lying to the south of the province. Its volume of water is said to be influenced also by the backwash from the Yangtze and Tungting Lake. At times it presents the appearance of a fine river, and in the winter season it becomes reduced to an insignificant stream, revealing shallow spots which effectually forbid steam-boat traffic, even with the light-draught vessels constructed for the Hankow-Changsha run and which draw from three and a half to four feet of water. The city is a trifling height above sea-level and is surrounded by low-lying hills which to the south and west break away into rather fine mountains. They attain to no great altitude, however, even in the south.

The soil is of a red clay formation and sufficiently dense to direct the flow of surface waters to the lower levels, where they collect and form natural reservoirs and are utilized by the Chinese for irrigation purposes. In the neighbourhood of the city land is well under cultivation, and while paddy-fields are numerous, the constant cultivation of the same, together with their arrangement in series of terraces on the

gentle slopes of the hillsides, rob them to a great extent of the dangers attributed to low-lying marsh-land.

The uncultivated areas are free from abundant vegetation and anything akin to a rich, rank undergrowth which would be likely to afford the requisite shade and moisture for the prolific breeding of germ diseases. [Disease-spreading insects.—Ed.]

The significance of the configuration of the surrounding country, formation of the soil, and the absence of true marsh-land is witnessed to by a gratifying and remarkable absence of malaria. The few cases which are seen are of a mild and benign type.

The climate on the whole is equable, but is essentially moist. The constant presence of a high percentage of moisture makes it a most trying one at times. During the hot months there are frequent intervals of cloudy weather accompanied by light rain and attended at times by electrical manifestations. Were this season devoid of the slight breaks caused by these periodic rainfalls, it would prove most relaxing and enervating. The hot season, beginning about the middle of May, is modified not only by these frequent rainfalls, but also by two fairly constant inland breezes which correspond more or less accurately with the dry and wet monsoons. That blowing from the north or north-west is considerably cooler than the other; while it prevails, however, the moisture in the atmosphere appears to be greatly increased. The southerly breeze produces a more marked variation in the hygrometer, and while not so cool as the breeze from the north, it imparts a distinctly refreshing effect to the otherwise moist and relaxing air. During the year 1904, in the months of June, July, and the first week in August, a southerly breeze, alternating with a northerly breeze, was observed at times to veer to the west toward nightfall, where it remained steady for several hours, changing again toward the morning.

Inorganic substances are at times found in the atmosphere. They are not, however, of local origin, but appear as an impalpable dust which comes driven before the north wind from the great dust-storm regions lying beyond the Yangtze. It thoroughly impregnates the atmosphere, enveloping the landscape in a mist-like haze and depositing considerable quantities upon smooth surfaces, furniture, etc. Bronchial and respiratory irritation is much increased at such times.

The atmosphere is quite free from organic impurities. The *autumn weather sets in toward the end of September* and introduces a remarkably fine season, which is perhaps the choice portion of the year. This holds good till well on into December, about which time a

disagreeable and penetrating chill invades the air and continues till the beginning of the wet season. The cold is usually accompanied by one or more light falls of snow, which quickly disappear.

Each year has one rainy season extending as a rule over the months of February, March, April, and May. During a wet season the total rainfall is not large. In 1905 there fell in these months twenty-two inches in 432 hours. The total amount for the whole year does not appear to greatly exceed this, the record for the year ended June 1905 being approximately thirty-six inches. The wet season comes scarcely second to the hot in its depressing influence upon the physiological functions of the European resident. For days in succession the variations between the wet and dry bulbs are extremely slight, and at times there is no appreciable difference. The long, oppressive, and lowering days, accompanied by their disagreeable moisture, appear interminable and are much more dreaded than the actual rainfall. The yearly thermometric variations range from twenty-six to one hundred degrees, Fah. In any given season they are slight, comparatively. During the hot season the variations are slight during the day, but at night an occasional drop may be experienced. Barometric variations are constant, but extremely slight.

The city possesses an excellent supply of sparkling spring water, which is abundant and accessible all the year round. The Hsiang River, when not in flood, furnishes an unlimited supply of clear, potable water, which indeed is good at any time of the year after the removal of the inorganic impurities.

The Chinese population exhibits considerable energy and patience, and there is by no means the degree of laziness and apathy one is led to expect in a similar geographic situation. Changsha is a "city within the walls." There are no vacant areas inside, and the houses are almost universally of a comfortable Chinese order and appear to be kept in good repair. The authorities exercise considerable care in maintaining the city wall in an excellent state of repair, and this, with the marked tendency to beautify desirable spots and the success in carrying out a fairly efficient scavenging system, combine to lessen the refuse nuisance, and consequently the danger to health arising from the same.

Inside the city, where the inhabitants get an insufficient supply of fresh air and sunlight, there is a marked evidence of diminished vitality. Tuberculosis of the lungs is by no means rampant; and while it is true

that this disease, in one or other of its forms, constitutes one of the three or four most common diseases seen in this section, it prevails in a strikingly large proportion of cases in the glandular, cutaneous, and bony systems some appreciable time before manifesting itself as lung disease or involving the system generally. This indicates no little effort as well as success on the part of the human organism to throw it off, or at least an endeavour to localize it. Bronchial, venereal, skin, and eye diseases are most common, and together with tubercular manifestations constitute the bulk of the ills to which the flesh is heir, as represented in daily hospital and dispensary practice.

To the average foreigner the trying feature is the excessive degree of moisture which is ever present in the atmosphere. Physiologic functions are profoundly affected, and while not to that degree which would justify one to speak of the induced condition as disease, yet vitality becomes so weakened that the individual becomes an easy prey to disease. Hereditary weaknesses are prone to manifest themselves, and when acute disorder has once become established, convalescence is extremely unsatisfactory and recovery retarded.

One of the serious observations is the considerable lessening of lung vascularity which is experienced. There is a reduction both in the amount of blood going to the lungs and of chest and lung expansion. This causes much less fresh air to be consumed and less carbon to be excreted than is the case in Europe. Foreign ladies are subjected to an aggravated form of any disorder they may be suffering from. There is a distinct tendency to develop pathological conditions which have hitherto been dormant. Menstrual disorders, sterility, etc., are prone to manifest themselves. Children do very well for the first few years of their existence, but subsequently manifest indispositions which are due directly or indirectly to climatic conditions. They invariably become pinched and puny looking on the incidence of hot weather.

Periods of mental excitement with corresponding depression, loss of sleep, and the presence of vague headaches, indicate that the nervous system is more or less definitely affected. That nutrition is interfered with is seen in the fact that a loss of weight and an enfeeblement of muscular power is experienced. Digestion is somewhat tardy and the appetite lessened. The presence of troublesome constipation is also noted. The function of the skin is greatly stimulated and its irritability increased to an extent that makes it predisposed to a heterogeneous crop of disorders ranging from simple heat-rash to varnish, traumatic, and germ inflammations. The climate on the whole is doubtless best suited

to the residence of the strongest Europeans, and preferably to those whose native climate approximates even in a small way the climatic conditions found here. Satisfactory and sustained daily work is only possible for those who possess sound and vigorous bodies and who, by constant vigilance, avoid abusing them. A term of service extending beyond five years should not be considered for the average man; and whether the term be brief or long, it is necessary, where the individual is run down by well-defined disease, anæmia, or a vague debility, to leave the district in order to ensure progressive and satisfactory recuperation.

29th June 1905.

REPORT ON THE HEALTH OF CHUNGKING FOR THE
YEAR ENDED 30TH SEPTEMBER 1906.

By J. H. McCARTNEY, M.D.

The twelve months under review have been a very healthy year for the foreign community. During the time only one death occurred, and that was from accident. A sailor of one of H.B.M.'s ships accidentally fell down a deep ravine after night and broke his neck. He remained paralysed for about eight days, at the end of which time he died from suspension of all the functions of the body. A second death occurred by suicide. A Japanese who represented some drug firm in Japan committed suicide by using his sword to cut his throat. The births have numbered four.

We have seen no signs of cholera since the slight epidemic in the latter part of 1904, and remittent fever only claimed two foreign patients during this time. Remittent fever among the Chinese has been considerably less than in the previous twelve months, which was due no doubt to the fact that heavy rains which washed out the city came earlier than the previous year and we did not have it so hot.

The meteorologic instruments of the Customs no doubt are of the best, and they were located by the Director of the Sicawei Observatory, but I cannot help but believe that they have been wrongly placed, from the fact that they register a very much higher temperature across the river from the city than in the city itself. It hardly stands to reason that in the city it would be cooler than outside. They get the reflected heat of the afternoon sun, which I believe accounts for their higher registrations; but I do not think that it is an accurate registration of the heat of Chungking.

A number of foreign buildings have been erected in the past year, and there is no doubt that the health of the foreigners has been materially improved by such building. The greatest factor in making of Chungking as healthy as it is, is the bungalows across the river; the majority of the foreign residents live there for the two hottest months in the summer.

The record that the school for foreign children has made within the past six years would prove beyond the question of a doubt that the hills of Chungking are as healthy or healthier than the average boarding-school location in the home land.

The Chinese have at last awakened to the fact that vaccination from the scab of another patient is dangerous and that disease may be communicated thereby. It seems that the principal vaccinator of the city (who, by the way, has become rich from it) was the cause of a large number of deaths through his septic way of vaccinating, and the old way has come into disrepute, so much so that a prominent Chinese gentleman in the city has come forward and offered to pay for all vaccine and the cost of operation. He has billed the city and requested the people to call upon the writer and be vaccinated at his expense. This is true reform, and it gives us hope for the future when we see men awakening to the fact that their old methods are worse than ineffective.

We had an interesting caesarian section case a few months since. We operated on the same woman two years previous, at which time we only had native assistants, and, on account of the woman's serious condition, we did not tie off the tubes or do a historectomy as is our custom. One year following operation she became pregnant again, but was not brought to the hospital till two days after labour commenced. When she came she was in a state of collapse, and we did not have any hopes of saving the mother, but undertook the operation in the hopes of saving the baby. She was prepared, and under light *chloroform* narcosis the abdomen was opened and the uterus brought out. When the uterus was expelled she stopped breathing and became pulseless. We proceeded with the operation quickly, and by the time the tubes and ovaries had been tied she had revived somewhat, so that we felt warranted in proceeding with a historectomy, which was done. By the time the operation was finished she was in better condition than at the beginning of the operation. The operation was complicated by great distention of the bowels with gas, so much so that it was impossible to keep them within the abdomen. Her bowels had not moved for six days, and she presented symptoms of obstruction. As soon as the operation was finished she was given *calomel* in divided doses, which together with a high enema the next day produced the desired effect and her bowels moved freely. She lived five days, which was remarkable considering the condition she was in when operated upon. The baby lived, and at last accounts was doing well. The baby that was delivered in the same way two years ago is now a fine, large child.

An out-of-the-ordinary osteo-sarcoma was operated upon during the year. The patient, a tailor by occupation living in a neighbouring city, presented himself with an osteo-sarcoma of the lower jaw of six months standing. The entire lower jaw from the temporo-maxillary joint on the right side to the second molar tooth on the left side was removed. The

wound healed without suppuration, but in about two weeks the parotid gland on the side on which the tumour was located suppurated, which delayed his convalescence much longer. The results were very satisfactory to the doctor and patient.

Internal and external hæmorrhoids are a very common complaint with the natives of this place, and not a few foreigners develop them after being here a while. The excessive use of red peppers in their food by the natives is no doubt the exciting cause in many of the cases.

The operation we generally do is a modified Whitehead, where we pull down the mucous membrane and stitch it to the anal margin. This gives us a perfect result with no tendency to stricture, whereas the old operation was generally followed by a stricture which gave the patient about as much trouble as the piles themselves.

We are indebted to the Harbour Master, Mr. Parker, for the meteorologic table, and to the former Harbour Master, Mr. J. H. Barton, for the heat register for the past ten years appended.

METEOROLOGICAL TABLE, 1905-06.

MONTH.	RAIN-FALL.	BAROMETER.		THERMOMETER.		RIVER.	
		Max.	Min.	Max.	Min.	Highest.	Lowest.
1905.	<i>Inches.</i>					<i>Ft. in.</i>	<i>Ft. in.</i>
October	7.18	29.981	29.235	83	50	54 4	22 3
November	3.50	30.002	29.303	68	46	26 3	11 7
December	1.44	30.063	29.174	63	40	12 3	6 4
1906.							
January	0.50	30.041	28.877	59	35	7 6	2 5
February	0.18	29.286	28.614	69	40	3 1	1 7
March	1.08	29.399	28.557	84	40	4 0	0 11
April	4.27	29.128	28.618	82	55	16 3	2 6
May	3.56	29.092	28.538	97	61	26 4	13 9
June	6.12	29.115	28.482	96	70	52 2	16 9
July	1.00	29.214	28.902	107	71	61 1	20 2
August	8.29	29.403	29.005	85	70	74 6	27 3
September	1.93	29.645	29.171	102	65	50 5	24 5

NOTES SUR UN CAS D'ANÉVRYSME DIFFUS DE LA RADIALE À PAKHOI.

Par le DR. ABBATUCCI.

Le né Hiang-hy-tchang, sujet chinois, venant de Kin-tcheou, se présente à la consultation le 11 novembre 1905, porteur d'une volumineuse tumeur de l'avant-bras droit, dont il nous prie de le débarrasser. C'est un homme de 40 ans, de constitution moyenne, mais aux traits emaciés par l'abus de l'opium.

D'après ses renseignements, l'affection date de trois ans. C'était au début une petite tuméfaction insignifiante, du volume d'une noisette à peine, apparue un jour brusquement sans cause appréciable, sans traumatisme de la région. À la suite d'un vigoureux massage pratiqué par un rebouteur chinois, la poche éclata soudain et depuis lors, progressivement, l'avant-bras augmenta de volume.

Les dimensions actuelles de la tumeur sont considérables et peuvent être comparées à celles d'une tête de nouveau-né. Toutefois, elle n'est point sphérique, mais plutôt ovoidale à grand axe longitudinal commençant à un travers de doigt du pli du coude, pour se terminer à 6 centim. du poignet. Elle paraît occuper toute la loge antéro-externe de l'avant-bras, empiétant néanmoins davantage sur le côté radical du membre. À son point culminant, on constate une ulcération cutanée circulaire du diamètre d'une pièce de 5 francs. Sa consistance est nettement rémittente. Son auscultation ne révèle rien de particulier, mais en appuyant convenablement le stéthoscope sur l'humérale ou la carotide droite ou même par une compression digitale modérée de ces artères, on entend ou on perçoit une sorte de bruissement, de thrill vibratoire. Le pouls radial est impossible à découvrir, la cubitale à peine perceptible. Les mouvements de flexion et d'extension du poignet et des doigts sont à peu près conservés; le mouvement de pronation et de supination du membre sont abolis.

L'âge de la tumeur, l'absence de fièvre, etc., permettent d'éliminer tout de suite l'idée d'une collection purulente. On pourrait songer à un hématome, mais il n'existe point de traumatisme initial. La petite

collection limitée du début était donc sans doute un anévrysme de la radiale qui sous l'influence de malaxations violentes et intempestives s'est brusquement transformé en anévrysme diffus.

Quelle était, en pareil cas, la conduite à observer? La meilleure méthode et la plus certaine était évidemment d'aller à la recherche des deux bouts de l'artère brisée et d'en opérer la ligature après avoir débarrassé la poche de son contenu. Mais étant donné la vieillesse des accidents, le volume et la distension de la tumeur, la présence d'une ulcération cutanée étendue, les désordres intérieurs devaient être déjà considérables. Aussi pareille intervention nous apparut-elle comme irréalisable et, en désespoir de cause, nous proposâmes au malade l'amputation du bras. Mais ici on se heurtait aux convictions bien arrêtées du patient qui, comme tous les Chinois ses compatriotes, tenait absolument à se présenter au complet le jour de sa mort devant l'esprit ancestral et qui opposa à notre proposition le refus le plus formel.

Il fallait agir cependant; le temps pressait, une brèche cutanée était imminente et avec elle l'hémorrhagie foudroyante et mortelle. Nous songeâmes alors à instituer un traitement purement palliatif: la ligature de l'humérale au pli du coude, qui fut acceptée.

L'artère fut donc découverte et liée le plus bas possible en respectant une grosse collatérale qui se présenta sous le bistouri (20 novembre). Les suites opératoires furent excellentes. Le malade accusa simplement un peu d'engourdissement de l'avant-bras. La tumeur parut s'affaïsser; sa consistance devint molle et on pouvait même lui imprimer des mouvements d'oscillation ce que ne permettait point autrefois sa distension. Mais à cela se borna l'amélioration; l'ulcération cutanée gagnait toujours et la menace hémorrhagique se posait de nouveau dans un délai plus ou moins éloigné.

Dans ces conditions nous nous résolûmes enfin à offrir au malade de tenter une intervention directe sur la poche sous condition formelle de nous autoriser à amputer, en cas d'insuccès. Après une lutte acharnée, le patient se rendit à nos objurgations.

L'opération fut pratiquée le 11 décembre après anesthésie cocaïnée et application de la bande d'Esmarch: Grande incision de 12 centim., suivant la ligne d'opération pour la ligature de la radiale, allant jusqu'à l'aponévrose. La peau se détache facilement de cette dernière sous la

simple pression des doigts. Pour nous donner plus de jour, nous détachons par une deuxième incision courbe contournant l'ulcération un grand lambeau cutané. L'aponévrose est à son tour sectionnée sur une soude cannelée et la poche anévrysmale se montre aussitôt sous nos yeux. Nous y plongeons le doigt qui s'y enfonce comme dans de la gelée de groseille et ramène des caillots ocreux et de débris musculaires. Par expression et au moyen de lavages nous la vidons de toute cette purée musculaire et sanguine. Notre doigt allant en exploration retire de nombreux débris osseux. Le radius est fracturé sur une longueur de 12 centim. environ; nous en extrayons des séquestres sur lesquels on remarque encore l'expansion fibreuse des insertions musculaires. Les muscles de la région externe (radiaux-supinateur) et les muscles superficiels de la région antérieure (rond pronateur grand palmain—petit palmain) n'existent plus et nous essayons sans succès de reconnaître au milieu de ce putrilage le médian et l'artère radiale.

Il était évidemment impossible de conserver un membre atteint de pareils dégâts et nous avertîmes le malade qu'il devait se résigner à l'amputation du bras. Celle-ci fut pratiquée, séance tenante, au tiers inférieur, pour la méthode circulaire, après *anesthésie cocaïnée*. Elle fut supportée sans grande douleur et une dizaine de jours après, le malade pouvait de nouveau vaguer à ses opérations habituelles après avoir présente des suites opératoires très bénignes et apyrétiques.

Suivant le désir de l'opéré, le segment du membre amputé lui fut remis et un sien ami l'enterra soigneusement dans une minuscule fosse, d'où il sera exhumé plus tard lorsque le réclamera le squelette possesseur, navré de sa mutilation anticipée.

RAPPORT SUR LA SITUATION SANITAIRE DE PAKHOI POUR LA PÉRIODE S'ÉCOULANT DU 1^{ER} MARS AU 30 SEPTEMBRE 1907.

Par le DR. R. ASCORNET.

Arrivé pour la première fois à Pakhoi le 22 février et agréé comme médecin des Douanes impériales chinoises à dater du 1^{er} mars, je n'aurai que fort peu de choses à dire sur l'état de la santé publique à Pakhoi pendant les sept mois qui viennent de s'écouler.

Mes prédécesseurs ayant très certainement traité la question climatologique et nosologique de ce pays, il me restera simplement à dire quelques mots des deux épidémies, choléra et peste, qui ont sévi cette année à Pakhoi et dans les environs immédiats.

Les pluies ayant en partie manqué cette année on pouvait s'attendre à une reviviscence des anciens germes morbides, cholériques, pesteux, dysentériques, au moment des fortes chaleurs. C'est du reste ce qui n'a pas manqué. Les fortes pluies, qui paraît-il les années précédentes, se chargeaient de nettoyer la ville et d'entraîner à la mer les débris innombrables qui souillent les ruelles et les carrefours, ont complètement fait défaut, aussi le choléra faisait-il son apparition à Lien-cheou dans la deuxième quinzaine de mai. Cette épidémie, qui semble-t-il a été assez meurtrière, n'a pris fin que vers le 15 septembre.

Dans les premiers jours de juin on constate des cas de choléra à Ngai-sa, village situé dans la banlieue de Pakhoi. Ce village est habité par une population que l'on peut estimer à environ 1,500 habitants; au début l'épidémie a sévi avec intensité, 6 décès en moyenne par jour, pour aller ensuite décroissant.

Enfin vers la fin juin on note des cas de choléra à Pakhoi même. On compte 6 décès par jour en moyenne pour le choléra, dans une population estimée à environ 30,000 habitants. Cette épidémie diminue dans la deuxième quinzaine de juillet, où il n'y a plus que 4 à 5 décès par jour. Chose bizarre cette diminution de gravité de l'épidémie coïncide avec une recrudescence d'affections gastro-intestinales, diarrhées et dysentérie qui sévissaient déjà depuis trois mois environ. Les cas de choléra étaient très sévères, puisque les malades atteints mouraient en quatre et cinq heures. Les enfants ont été indemnes, l'épidémie se localisant chez les grandes personnes et plus particulièrement chez les femmes. Certains hommes atteints ont guéri spontanément, et on ne cite pas de cas de femme atteinte ayant échappé à la mort.

L'épidémie a sévi surtout chez les gens de vie sédentaire, boutiquiers et artisans; la classe si nombreuse des coolies ou des travailleurs au grand air a été peu atteinte. En tout le choléra dure toujours, c'est surtout la population des jonques qui est décimée. L'épidémie s'étend, la plupart des villages voisins de Pakhoi sont contaminés, évidemment par les allées et venues continuelles des gens apportant leurs denrées au marché, mais on y constate surtout des cas isolés. Les villages de Ti-cok et de Senong-tune surtout ont été cruellement éprouvés. À Ti-cok il y avait plus de 10 cas mortels par jour. Enfin à partir du 10 août l'épidémie a été en pleine décroissance, et s'est terminée vers le 15 du même mois, ayant été très violente, mais en somme de peu de durée. En septembre on cite encore à Pakhoi de loin en loin quelques cas isolés mais non mortels.

Vers le 20 août le choléra se montre au village de Kao-tak; comme pour Ti-cok l'épidémie sévit très durement (une dizaine de morts par jour, dit-on), mais dure peu. Ce village, port de jonques très peuplé, situé à 6 km. environ de Pakhoi, qui compte 1,500 habitants, a été doublement éprouvé. Dans les premiers jours d'août la peste bubonique y avait fait son apparition, et dès l'origine sévissait avec intensité. Il est très difficile d'avoir des renseignements exacts sur cette épidémie, car la population très effrayée par la grosse mortalité, ne veut pas en parler, craignant dans sa superstition que la seule énonciation du nom de la maladie ne la lui donne. Cette épidémie de peste a pris fin vers le 1er septembre. La peste n'a pas été constatée à Pakhoi même, non plus que dans les autres villages voisins, elle semble s'être cantonnée dans Ti-cok. Il est étonnant que vu le mouvement continu et très important d'échange qui se fait entre cette ville et Pakhoi, cette dernière soit restée complètement indemne. Aucun cas de choléra n'a été constaté chez les Européens ou dans leur personnel. Bien avant l'apparition du choléra, au commencement de mai, j'avais noté une recrudescence très notable de diarrhée et de dysentérie; actuellement encore, ces deux affections, qui avaient presque disparu au moment de l'épidémie de choléra, reprennent avec une grosse intensité, mais on ne signale pas de morts dus à ces affections.

Je n'ai pas entendu dire qu'une épizootie quelconque ait sévi soit sur les bestiaux soit sur les animaux domestiques.

Je joins à ce rapport un tableau statistique de météorologie dont les indications m'ont été gracieusement fournies par le Révérend Père Pénicaud, chargé de l'observatoire français à Pakhoi.

I-CH'ANG FEVER.

By GEO. F. STOOKE, L. R. C. P., I-Ch'ang.

Nomenclature.—Readers of the Annual Report of the Rankine Memorial Hospital, I-Ch'ang, for the year 1907, will doubtless have remarked upon the large proportion of in-patients entered as suffering from "I-Ch'ang fever." An apology is certainly needed for the name so impossible from a scientific standpoint. It is the general opinion that "Shanghai fever," "Ningpo fever," "Hankow fever," "Yangtze River fever", etc., are all one and the same disease, but is that really the case? Will all medical men, who every year meet cases of non-malarial fevers, compare their experiences with those detailed below, and then it will be known if in the different ports and inland cities of China we are really meeting the same infection, though classed under different names. Is our "China port fever" the same as the official "Simple continued fever" of India? In Calcutta that disease appears to be anything but "simple", and a recent number of the *Journal of Tropical Medicine* was bemoaning the fact of its very high mortality, and that practically nothing was known about it. "I-Ch'ang fever" has a mortality of under one per cent., so is rather more deserving of the epithet "simple". But though the mortality is so low yet the illness is very protracted, the patient is terribly weakened by it and convalescence is always slow, and should any of us venture to style their illness "simple" I am afraid our patients would be inclined to doubt the correctness of our diagnosis. "I-Ch'ang fever" usually commences as a "remittent fever", but that name should be sacred to the severer types of malaria.

Fifteen years ago while at school in Chefoo, I can recall several cases of fever which Dr. Douthwaite, a former president of the China Medical Missionary Association, announced as "diagonal remittent", and a glance at the charts accompanying this paper will suggest why such a terminology was employed. I cannot find such a name, however, in any books, and Dr. Douthwaite himself in his treatise on fevers in China does not use it, probably because the book was intended

for lay readers. In that same book, moreover, he confounds the "Treaty-port fever" with malarial remittent.

Native patients suffering from this fever usually come to hospital describing their ailment under the comprehensive term 寒病 hau-ping, i.e., cold disease. This term is of course only descriptive of the initial prodromata when shivering and even rigors are often experienced, or the expression may possibly signify that the illness was brought on by cold. The natives here rarely confound it with malaria, for they recognise the very regular periodicity of even quotidian infections.

With all this choice of names before us what then shall we call it? Will some genius give us a suitable, descriptive, and scientific name?

Aetiology.—In our present state of ignorance the cause of the fever can only be guessed at, but its analogy to malaria seems to suggest that it is an infection caused by the bite of some blood-sucking insect. Of the many cases I have met with here the largest number have come from one house—a mission school. This building is situated at one end of a large shallow lake and quite near a series of paddy fields. Our commonest breeze (from the south-east) blows every afternoon through the hot weather across this sheet of water and would easily carry even low flying insects into the house. Extra precautions have now been taken in the shape of mosquito proof doors and windows, and it will be of interest to observe whether the percentage of fever in this school is thereby diminished.

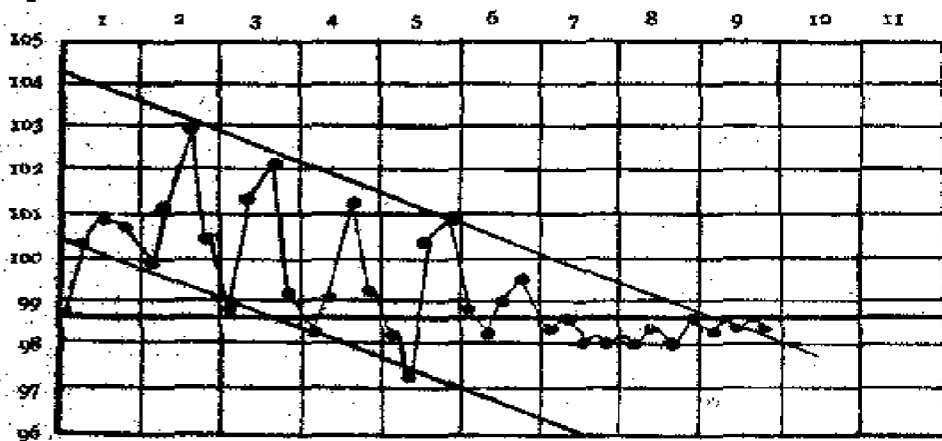
Examination of the blood in cases of "I-Ch'ang fever" is also highly suggestive of a protozoal infection, the proportion of the large mononuclear leucocytes being markedly increased as in malaria and trypanosomiasis.

Symptoms and Signs.—The illness is frequently initiated by a feeling of cold and shivering, but I have never seen so sharp a rigor as is common in malaria. Headache, backache, pains in the limbs are common as in any other acute infection. Some cases complain chiefly of nausea and actual vomiting, and this may persist, occurring every day when the fever is rising to its highest point. The fever is usually highest every afternoon and evening between 4 and 8 p.m. In a mild case the temperature will reach the normal line every morning, but in severer cases the fever is remittent in type. It is as a rule always lower in the morning than the evening. Some cases, without having taken any diaphoretic, will be troubled with excessive perspiration

often localised about the shoulders and the nape of the neck. At other times the sweats are drenching, necessitating constant changes of clothing. If the temperature rises to over 105° F. there will likely be some delirium. There are practically no other symptoms. The case is that of a simple (meaning thereby uncomplicated) and continued fever.

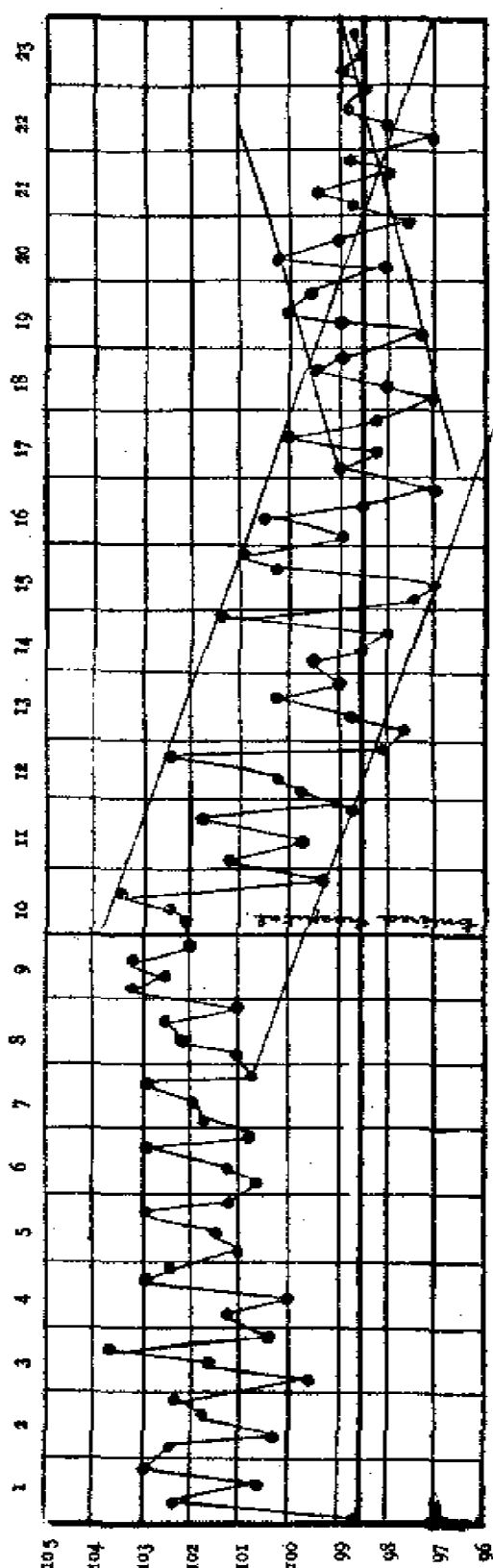
The signs to be found are equally unsatisfactory. The spleen is enlarged, but not markedly as in malaria and typhoid. It is slightly larger than normal, but only such as one would expect to find from the amount of fever present. I have never found any glandular enlargement, nor any rash. Indeed the diagnosis is made by excluding all known and named diseases, and having a case of simple and continued fever it is then named "I-Ch'ang fever."

Course of the Fever.—The temperature charts of these cases present, however, a very definite appearance which once recognised will never again be mistaken. I will briefly describe six cases, and their course may be studied by reference to the charts accompanying this paper.



CASE I.—M., aged 38, a foreigner.

Case I. This is typical of our simplest cases and is typical of the fever when it attacks strong and healthy males. There is usually an afternoon-evening rise of 101° - 103° F. The morning temperature being 2° - 4° less. The greater the differences between the morning and evening temperature the better of course for the patient, as he has a longer period of defervescence during the twenty-four hours. Each day the highest evening temperature will fall a little lower (usually half a degree) and the morning temperature will keep parallel to it, giving a parallel and diagonal marking to the chart. This I have suggested by lines. So exact is this type, as a rule, that by joining the highest temperature marks and carrying the line along the chart one is able to give the patient very exact information when the fever will be at an end. Disturbances of the diagonal line will of course occur from any mental work or excitement, departure from a milk diet, constipation, etc., etc.



CASE II.—R., aged 24, a foreigner.

Case II. This patient, a foreigner, had treated himself for nine days before entering hospital. He had during that time taken in all half an ounce of quinine, but with no good result. After admission the temperature was not so typical as an average case; that of the 11th and 13th days being quite deformed, and this may have been due to the quinine he had taken. These aberrations, however, never ultimately affect the normal diagonal which this fever takes. A slight relapse was threatened on the 19th day, but it came to nothing. Such relapses always show the same parallel and diagonal lines, but in an ascending direction.

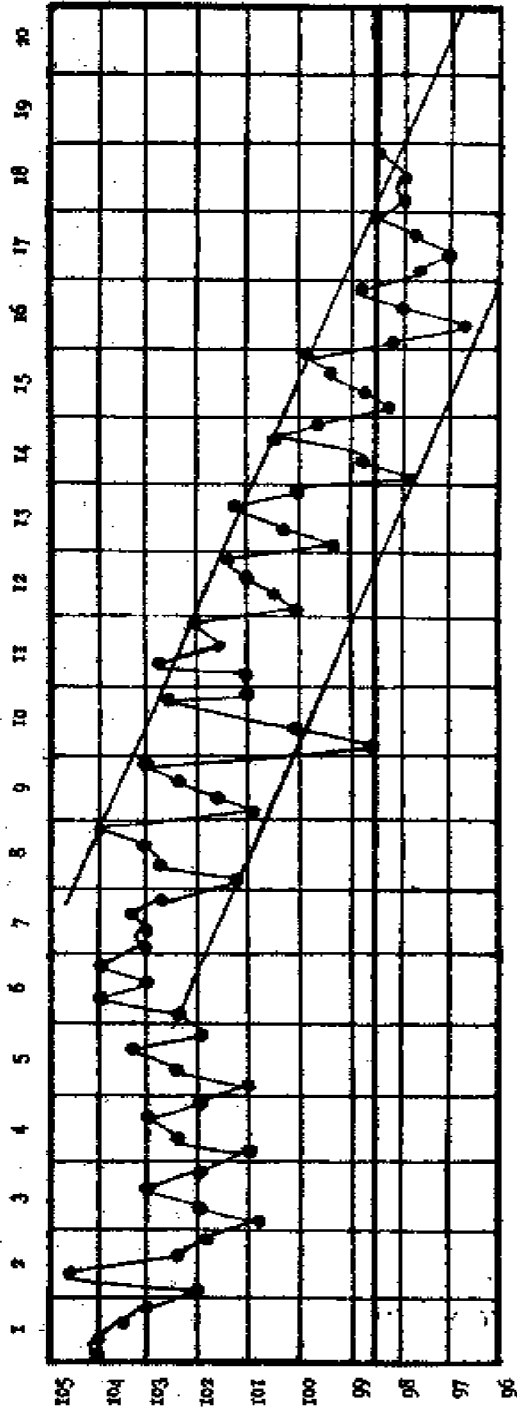
[See Charts on next pages.]

Case III was also a foreign patient treated in his own home until the 7th day and then coming into hospital. It is, however, quite common for the fever to keep on a high level, even with the best and most careful treatment for the first seven days of the infection. The parallel diagonals were well shown when once the fever began to get intermittent.

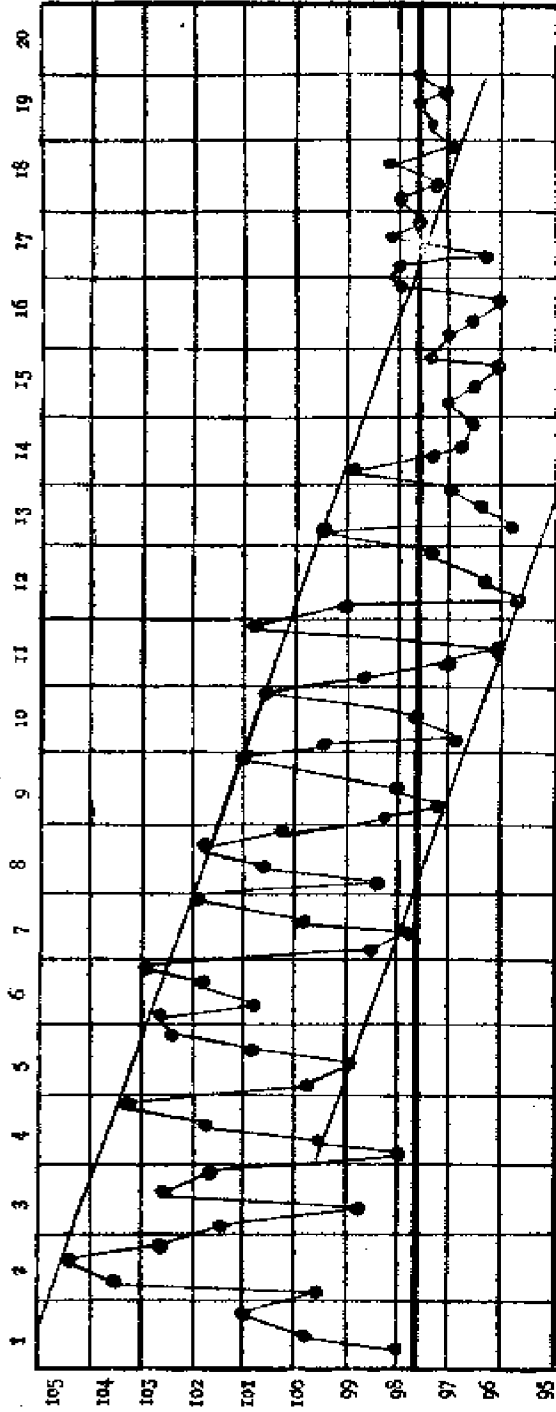
I may here state that in all these charts the observations were made by my native students, and many of the slight departures from the diagonal can be explained by their not exercising the proper care. They knew nothing of my parallel diagonal theory, so the charts are in no way "cooked".

Case IV. The patient in this case was a native. The chart was commenced on the 10th day of his illness, and from the history it was evident he had been suffering from a high remittent fever during that time, such probably as is seen in Case III. The prognosis in this case was good, as the difference between the morning and evening temperatures was 3° . In a blood film in this case was found what was considered a protozoal organism. It was present in very scanty numbers; only one being found in twenty slides examined. This slide has been sent to the London School of Tropical Medicine for corroboration.

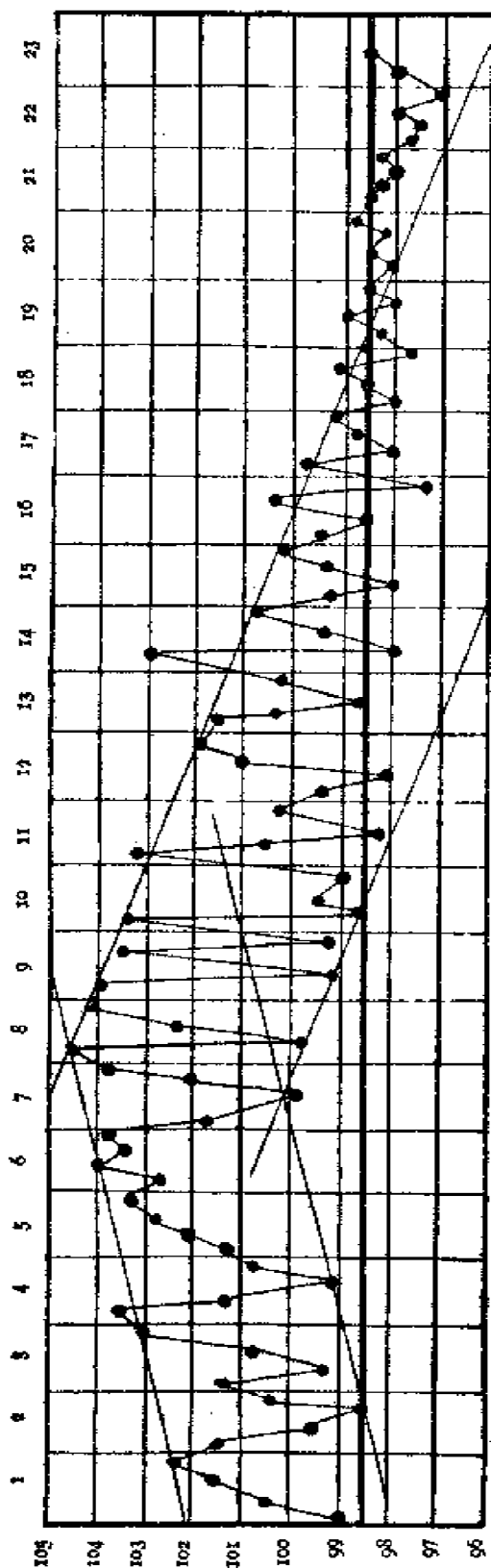
Case V. The experience during the first week in this case is unfortunately very common, the parallel diagonals running in the wrong direction. On the 9th day the patient was told she would probably be free from the fever on the 19th. This prognosis was made on the strength of the direction of the



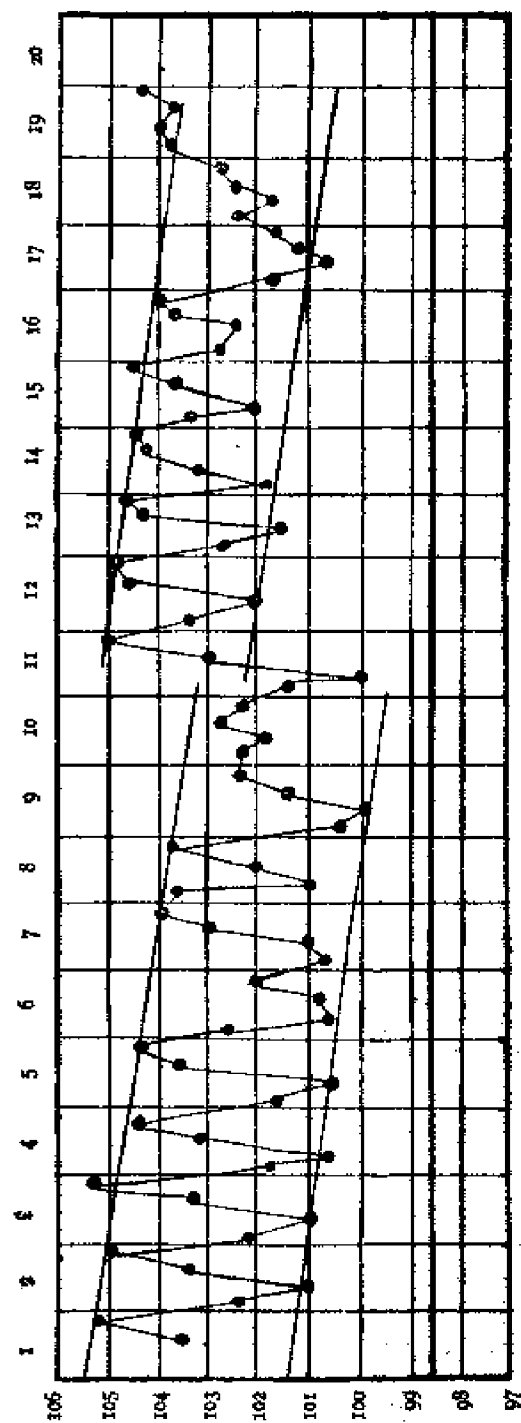
CASE III.—W., aged 37, a foreigner.



CASE IV.—Chang, aged 29, a native.



CASE V.—R., aged 36, a foreigner.



CASE VI.—N., aged 26, a Japanese.

diagonal line and proved correct. With a difference between the morning and evening temperatures of $4\frac{1}{2}^{\circ}$ the prognosis of course was very hopeful.

Case VI. This patient, a Japanese, was the only case that terminated fatally in all the patients I have attended during the past eight years. Drenching perspirations were a rather unusual feature in this case. On the 11th day of the fever a decided change for the worse took place, when a new and higher parallel diagonal temperature occurred, which terminated on the 17th day in heart failure and in death on the 19th.

Blood Examination.—The red cells are normal in size, colour, and number. The white cells, while normal or reduced in number (I have never met a leucocytosis), are markedly altered as regards the normal proportion of their different constituents. The percentages of white cells in my cases work out as follows:—

	<i>Normal.</i>	<i>" I-Ch'ang fever."</i>
Lymphocytes	10-25 per cent.	12 per cent.
Large mononuclears	5-10 "	26 "
Polymorphonuclears	65-75 "	59 "
Eosinophiles and Basophiles	2-4 "	3 "

In Case IV as before mentioned a new element was found lying among the red cells. It was a sausage-shaped body in size 8m. by 3m., a little larger than a malarial crescent. Using Leishmann's modification of the Romanowsky stain two red chromatin dots could be seen lying in the centre of the body. The general matrix stained blue. No clear space was anywhere seen resembling a vesicular nucleus and there was an entire absence of all pigment. No vestige of any red cell was seen about it; it appeared to be present free in the blood plasma. Although many other films from the same case were examined no other similar body was ever found. If it is the cause of this fever it will therefore be a rare visitant of the peripheral blood and will probably multiply in the internal organs. One has witnessed so many such "discoveries" come to naught that no more need be said about this until some confirmation comes from home. It will be well though for all working at stained films of the blood of this fever to make most diligent and painstaking search in the hope of finding such occasional visitants.

Diagnosis.—From malaria fever it may be differentiated by the entire absence from the blood of the malarial parasite in any form. Pigment bearing leucocytes are never met with, and this fever never responds as does malaria to the therapeutic test by quinine.

We frequently meet with cases of enteric fever in I-Ch'ang, and there is never any difficulty in separating the two fevers. The entire absence of rash, no abdominal disturbances, and a much smaller spleen

easily separate the two fevers and moreover the blood picture of the two is quite different. Typhus would only be confounded with "I-Ch'ang fever" in the early days of the illness.

Treatment.—The patient is kept in bed and put on a milk diet. No drugs are really necessary, and quinine only distresses the patient unnecessarily. I usually, however, prescribe regular doses of phenacetin, 10 grains every four hours, combined with the citrate of caffeine to prevent cardiac depression. This is employed not as a curative agent but to minister to the patients' comfort. I have tried Warburg's tincture, methylene blue, cinnamon, and many other drugs, but all seem equally useless. With rest in bed, a light milk diet, and phenacetin, the patients are soon quite comfortable, the temperature begins to break, and gradually falls by lysis in the manner previously described.

Convalescence is sometimes very protracted; the too sudden assumption of any solid food, the mental excitement of writing a letter or receiving a home mail being often sufficient to cause a relapse.

When the fever has become normal for three days the patient is gradually weaned from the phenacetin and a good tonic is substituted. In persistent cases of relapse a holiday is necessary, preferably a sea trip.

The foregoing description of our "I-Ch'ang fever" is written in the earnest hope that other medical men who meet such fevers herein described, will compare them with the typical cases I have placed on the charts. This paper is only intended to be a basis for future study. Let us know first if the non-malarial fevers met with in different parts of China present a similar clinical picture, and then, with many minds working at it, advances in our knowledge of aetiology and treatment will assuredly be made.

I-CH'ANG, 7th April, 1908.

REPORT ON THE HEALTH OF TENG YUEH FOR THE
TWO YEARS ENDING 31st MARCH, 1908.

By Dr. RAM LALL SIRCAR.

1. *Geographical Position.*—Tengyueh is situated on the left bank of the upper Taiping river, which is locally called Tieh Shui Ho 跌水河, on account of its sudden fall about 90 feet below. It is about 5,365 ft. above the sea level, and is placed on the 25.2° N. latitude and 98.30° E. longitude.

2. *Geological Features.*—It is said that the town is built on or about the dry bed of an old lake. The soil of the town proper is composed mostly of dark clay, mixed with gravels, and heavy rocks are discovered here and there when an attempt is made to sink a well. The people dig out every year enormous quantities of peat from the paddy fields on the east of the city, which they use as fire wood.

3. *Sanitary Condition.*—

(a). *Drainage.*—Natural drains are very efficient, but the condition of the artificial drains in the town remains unaltered. No attempt is made to clean them. Had it not been for the need of the gardeners for manure, their condition would have been many times worse than we see it now.

(b). *Latrines.*—There are private latrines in almost every house, but there is no public latrine in the town to speak of, except perhaps a wretched one near the Southern gate. The gardeners carry night soil in open buckets through the crowded streets and store them in open tanks in their gardens, some of which are just close to dwelling houses and main roads. When these tanks are stirred up and their contents are thrown to the garden it causes a great nuisance to the people and adversely affects their health.

(c). *Personal Hygiene.*—The Chinese people of this place seldom bathe, their only cleanliness being to wash the face and hands every morning, in consequence of which a majority of the people suffer from itch, eczema, ringworm, etc. Their long finger nails harbour the germs of many contagious diseases.

(d). *Buildings*.—There has been a marked improvement in this respect during these two years. Besides the new Custom House, quarters for the Commissioner, the assistant, and the outdoor staff, as well as the examination shed, have been built; new barracks have been provided for the soldiers in much improved style, and various old yaméns have been rebuilt and repaired during this time by the local authorities.

4. *Meteorological*.—

MONTHS.	THERMOMETER.				Total monthly rain- fall in inches.	
	Average maximum temperature.		Average minimum temperature.			
	1906-07.	1907-08.	1906-07.	1907-08.	1906-07.	1907-08.
April	71.0	64.0	54.0	48.0	3.42	2.72
May	78.0	71.0	59.0	56.0	3.01	5.73
June	81.0	77.0	63.0	68.0	9.15	5.27
July... ..	76.0	71.0	66.0	66.0	11.35	13.80
August	75.0	73.0	65.0	66.0	7.00	12.80
September...	79.0	76.0	65.0	64.0	6.28	7.30
October	73.0	74.0	56.0	59.0	3.12	7.00
November...	69.0	66.0	47.0	46.0	0.53	"
December	65.0	58.0	38.0	44.0	"	4.63
January	61.0	61.0	39.0	35.0	2.00	1.25
February	63.0	64.0	44.0	37.0	1.05	0.25
March	67.0	74.0	45.0	42.0	2.00	0.40

The heaviest rainfall for any one day in 1906-07 is 2.27 inches in July, and in 1907-08 is 2.70 inches in August.

The hottest day in 1906-07 was on the 28th May, 1906; the maximum temperature being 90°, and in 1907-08 was on the 23rd May, 1907, when the maximum heat recorded was 81°. The coldest day in 1906-07 was the 26th January, 1907, the minimum temperature recorded being 32°, and in 1907-08 the lowest heat recorded was, on the 20th January, 1908, 29°.

There was a heavy fall of snow for about two hours on the mid-day of the 29th January, 1908. The hills and fields looked like vast sheets of white paper.

The prevailing wind is S. W. throughout the year, but more southerly during the summer months.

5. *General Health*.—The general health of the foreigners in this port was fairly good in 1906-07 and indifferent in 1907-08; and that of the Chinese population was greatly disturbed by an epidemic of smallpox which broke out in the town and its surrounding villages during the end of December, 1907, and lasted for over three months.

6. *Classification of Diseases Treated.*

DISEASES.	1906-07.	1907-08.
Small-pox	1	...
Dysentery	24	8
Malarial fevers	126	117
Venereal diseases :—		
Syphilis	36	51
Gonorrhoea	22	19
Debility and anæmia	22	18
Leprosy	2	1
Tubercular diseases (of lungs)	11	5
Diseases of the nervous system	53	31
" " eye	132	133
" " lungs	33	33
Other diseases of respiratory system... ..	36	54
Diseases of the circulatory system	7	6
Diarrhoea	29	17
Dyspepsia	69	51
Diseases of liver	11	7
Other diseases of the digestive system	114	100
Diseases of the generative system	24	38
" " urinary system	25	9
" " connective tissue	38	33
" " skin	176	111
Goitre	13	8
Ulcer	122	114
Poison	2	1
Juvenis	48	29
Other miscellaneous diseases	98	95
Midwifery cases	7	9
Total	1,281	1,098

The most prevalent diseases treated were malarial fevers, diseases of the eye, diseases of the digestive system, diseases of the skin, and ulcers. Though there was a severe epidemic of small-pox in the town, as already mentioned, only a single case came under any treatment.

It appears to me that venereal diseases are slowly getting prevalent among certain classes of the people. The local people believe, and rightly, that venereal diseases are not indigenous; they have been imported from Burma.

7. *The table given will show at a glance the number of the different sexes of the patients treated during the two years under review.*

Year.	Male.	Female.	Children.	Total.
1906-1907	867	302	112	1,281
1907-1908	795	234	69	1,098

There was no death among the foreigners during these two years.

8. *Epidemics.*—I have never seen a single case of cholera or heard of it during my five years' service in this port. Similarly I have never heard of a single case of bubonic plague occurring in this part of the Yunnan province, though plague is sometimes prevalent in severe epidemic form in the city of Yungchang, a comparatively large town, about 300 *li* from this place. The popular belief is that the disease can never cross the Salwun river on account of the influence of some unknown deity presiding over that part of the country.

Vaccination is getting gradually popular among the people, and there are many quacks at present who are doing a good business in the profession of vaccination. During the last two years I have been able to vaccinate over 100 children each year, with excellent results. But compared with the enormous number of the population the number of children vaccinated each year was very much smaller than those inoculated. The majority of the people still have firm faith in the old practice of "Ch'ui Hwa" 吹花, or blowing the powdered scabs of small-pox up the nostrils of the children. I have already mentioned in my first report in 1903 the evil effects of this practice. This method of inoculation is followed by an attack of small-pox within a week's time, and the severity of the attack depends on the doses blown up, as well as the virulency of the poison in the scabs used. Not a few of the unfortunate children succumb every year as a result of this malpractice; many have disfigured faces, some get partially or completely blind, and several such cases of blindness as the sequel of "Ch'ui Hwa," came under my treatment.

I have mentioned above that there was a severe epidemic of small-pox in this port and its neighbouring villages. I am told that there was a great mortality both among children and adults from this disease. Among the children attacked, some were unprotected, some inoculated, and some vaccinated by Chinese vaccinators. I am glad to note that not a single case, out of the number vaccinated by us during the last five years, has been touched by the epidemic. The Chinese vaccinators, on account of the scantiness of the supply of their lymph, which they receive from Burma, collect scales from the vesicles of successful vaccination cases and store them carefully. They prepare a kind of paste by mixing the powdered scales with human milk immediately before they use it for vaccination. Now vaccination carried on with this paste, does not give the desired result; it only produces some papular elevations in most cases, which may be called modified cases of vaccination.

Hence their so-called successful cases are sometimes seriously affected by the epidemic of small-pox.

The local authorities have advanced a step by establishing a vaccination depôt here, with a view to giving free vaccination among the people. A Chinese doctor of some reputation has been appointed on a monthly salary to carry out the work, and I am told that he has been able to vaccinate over five hundred cases during the last season. But I learn with regret, from various sources, that his work has been very unpopular among the people on account of many children having suffered from blood poisoning after vaccination, and some children were severely attacked with small-pox after his so called "successful" vaccination. One woman brought to me a child who had lost one eye and the other was to be shortly blind. This child was also suffering from pyæmic abscesses, which I lanced. She told me that she had another boy at home who had gone entirely blind. Both these boys were successfully vaccinated at the government depôt and they both were attacked with small-pox about fifteen days after vaccination.

From these two cases, and other three cases of blood poisoning after vaccination, which came under my treatment I gather that either the lymph or scales, whatever it may have been, must have been infected with septic matter, or the lancet must have been dirty. These and other similar cases have brought discredit on vaccination and have prejudiced the minds of the people.

9. *Surgical Operations.*—The following surgical operations were performed during each year under report:—

NAME OF OPERATION.	1906-07.	1907-08.
Extraction of tooth	10	13
Evacuation of abscess	11	14
Phimosis, circumcision and incision of prepuce	2	2
Incision of gum boil	1	2
Operation on colic sinuses	1	...
Operation on hare lip	2	1
Tapping of ascitis	1	...
Removal of necrosed bones by incision	2	1
Reduction of dislocation of shoulder joint	1	...
" " " " elbow joint ... ..	...	2
Opening of deep sinuses by incision ... ..	...	1
Operation on the eye lid for entropion	2	2
" " " " ball for pterygium ... ..	...	2
Removal of adherent placenta by hand ... ..	...	2
Delivery of child by forceps	7	6
" " " " after amputation of arm from the shoulder joint ... ..	...	1
Excision of fatty tumours	1	2
Total	41	56

NOTES ON OPERATIONS.

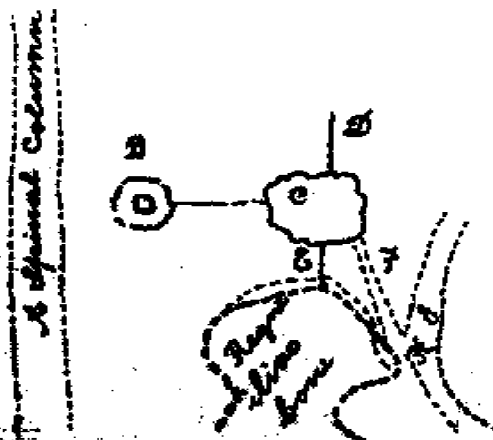
Colic Sinus or Faecal Fistula.—From the surgical point of view, this case being an important one, I should like to give here a short account of it, which I believe will be interesting to professional readers.

A young woman of about twenty was attacked with a very severe pain in her right lumbar region, attended with fairly high fever. I was called to attend on her, and I did what I could do to relieve her. From the dullness of the area, pain on pressure, redness and slight swelling, I thought she was going to have a deep lumbar abscess. After a few days' attendance I was informed by her relatives that she was quite well and no more attendance by me was required.

Exactly one year after that I was again called to treat a small ulcer on her loin. I found her as bad as I saw her a year ago. On examining the ulcer I found a small opening in the centre of it, and on probing through it I discovered a deep sinus communicating with the abdominal cavity. She was unable to walk properly and had constant pain in her right lumbar region. On pressure of her abdomen, over the painful area, it gave a profuse discharge of fetid pus, which relieved the tension for a while.

I proposed an operation, and after a good deal of hesitation her relatives agreed to it. I put her under chloroform and opened the sinus at a certain distance marked "C" in the diagram. Being single-handed I dared not proceed further in exploring the abdominal cavity, because it is dangerous to entrust an ignorant lay person with chloroform. After a month's treatment the condition of the sinus was not much improved, and I proposed a second operation, which was done with better courage and greater care.

I give a rough diagram below showing the number of sinuses and their course and the point where the fistula had communicated with the intestine :—



- A. Spinal column.
- B. Outlet of the fistula.
- C. A cavity or reservoir of pus.
- D. A second sinus upward.
- E. A third sinus downward.
- F. The fourth sinus communicating with the bowels.
- G. Showing the point of communication where part of the intestine was found adherent to the inner surface of the iliac bone.

I have noted above that during my first operation I opened the sinus from B to C. This time I discovered two more sinuses marked D and E, which were opened by free incisions. I then proceeded inward and downward, having my left index finger as a guide through the channel. The calibre of the fistula was too narrow to allow my finger passing through it, so I had to enlarge it by cautious incision. My finger arrived at the inner surface of the iliac bone, where I felt two or three growths as big as peas, which were removed by the finger. And then pushing my finger inward and downward gently I felt that it had reached the gut through an opening. I then hurriedly withdrew my finger, irrigated the wound and dressed quickly.

Before I left her house I gave distinct instructions that she should be confined to bed and that she must live on liquid diet. Next morning I saw her sitting on a chair; she complained that she passed a good deal of wind through the wound, and in the dressings I noticed some faecal matter. Third day I discovered a few crushed Indian corns in the dressings, mixed with faecal matter. On being questioned about her diet she denied having taken any solid food. But on pressure from all sides she admitted that she took some Indian corn the day before. One day I found some small seeds of a kind of fruit that resembles the fig. The Chinese patients, as a rule, never believe in living on light or liquid diet; they believe that liquid food makes a patient weaker.

For two weeks the faecal matter was noticed in the dressings and then the opening in the gut appeared to be closed. She never complained after that of passing wind through the opening. The sinuses B, D and E were entirely healed, and the pus tank C was also healed from all sides, except towards the fistula, F, which had a very small opening on the surface. I tried hard for two months to get that opening closed by all sorts of available remedies, but without success. Both the patient and myself were disgusted, and she stopped putting any medicines on it and depended upon nature. It is a curious fact that nature did its work, and she was quite well after six months without any treatment. She is now in very good health.

MIDWIFERY OPERATIONS.

There were seven midwifery cases attended during the year 1906-1907, six of which were primipara and one was multipara. In five out of the six primipara cases living children were delivered by forceps,

and both the mother and babies were doing well. In one case a dead child was delivered. The seventh case, a woman of about thirty-five years old, died immediately after delivery, due to failure of heart.

During the year 1907-1908 nine cases of midwifery were attended. The two cases of adherent placenta shown in the list were primipara, and they had their placentæ adhering for many hours after the children were born. In each case the placenta was separated from the uterus by hand; the patient doing well. Out of the remaining seven cases six cases had head presentations, and all were delivered by forceps. In one case only a dead child was born. The seventh case was a multipara, who had arm presentation. Before my arrival it appeared to me that somebody who attended on the woman, must have pulled the hand of the child with the idea of helping towards a speedy delivery. But it made the case worse. The arm advanced to such an extent that it was impossible for me to put it back. As soon as I put it back it slipped down immediately. After about two hours' unsuccessful effort to turn the child's head downward I decided to amputate the arm, as the child appeared to be dead. So the patient was put under chloroform and the arm of the child was separated from the shoulder joint, and it was then an easy matter to effect delivery. The trunk and the legs were pushed up and the head was brought down in proper position. After this I introduced forceps and brought the head without any difficulty. I had great anxiety about the patient's health, as she had a good deal of laceration, as well as exhaustion, but happily she recovered entirely, and now she enjoys excellent health.

In this connection I wish to speak a few words about my experience in midwifery cases in this part of China. During five years' practice here I have never met a country midwife in any house who knows anything about it. The woman under labour is entirely left to nature, and nobody helps her in affairs concerning delivery. The mother of the woman is generally the person who attends her sympathetically; it is supposed to be her sole duty to attend her in such a time of trouble. Her mother-in-law and sisters-in-law, etc., do not even touch her as a rule. In many instances I have seen them peeping through the windows and doors.

She is supposed to be delivered on her own bed on which she usually sleeps. After the child is born, and the after birth has come out, she

is supposed to cut the navel cord herself, wash her baby and wrap it in the clothes and place it on her lap. Boiled eggs are the principal diet after delivery. If the woman is very poor and cannot afford to buy any medicine, in case of weak health she drinks daily for a week or so some urine passed by young boys. This urine is considered as a good tonic.

The Chinese hate a person who attends on delivery cases. They consider him a very dirty and low person.

MISCELLANEOUS NOTES.

Three cases of leprosy were treated during these two years: one being a young woman of about twenty-two years, who had lost some fingers and whose feet were ulcerated. She does not believe in internal medicine and always takes medicine for external application. The results of the other two cases were not known.

Three cases of poisoning shown in the list were cases of opium poisoning, of whom one died and two recovered.

REPORT ON THE HEALTH OF KONGMOON FOR THE
SIX MONTHS ENDED 31ST MARCH, 1908.

By Dr. JOHN A. McDONALD.

The report for this port must necessarily be brief, as the author has not been able as yet to become acquainted with all local conditions.

The port, which is on the main branch of the West River, is distant from the city proper about two miles. Though it is surrounded by villages we are free from the odors, etc., common to a Chinese city. The country round is for the most part given up to mulberry production. There are a few gardens and paddy fields. The same system of mulching is used as elsewhere.

The houses occupied by the foreigners are on a fairly high piece of land. It has, however, been flooded. The system of drainage is on the whole poor. A system of sluices are laid at a short depth below the soil. The new Customs buildings must be excepted. There open drains are used. Some of these empty into small canals running past the houses, the others into the river. At high tide these are not properly emptied, and of course there is no means of flushing. For a while the above mentioned canal was quite offensive owing to the practice on the part of a few of dumping night soil into it. Lately this has been stopped.

The drinking water is obtained from the river. This is not as bad as it might seem, for there is, as a rule, a swift tide flowing by.

The rainy season and heat extended into October. This spring we have had bright sunny days to take the place of the customary dull damp ones. This of course has been beneficial to the health of all.

Measles and whooping cough, both of a mild type, have been prevalent among the children. Apart from these the general health of the foreign community has been good. Small-pox has broken out, but so far is limited to the boat population.

Of the cases which have come to the dispensary for treatment the larger number have been for eye troubles. Many of these were hopelessly blind. In a number of the cases of ulcerative keratitis a history of

small-pox as the origin was obtained. Granular ophthalmia is common among the boat people. Several cases of cataract have been seen. Two of these were under seven years of age. Operative treatment has, owing to lack of accommodation, been limited. The question is, What can be done to prevent such loathsome eye troubles as present themselves?

I have not been able as yet to confirm the report that vesical calculus and malaria are common in this district. I have very good authority as to the veracity of the former.

An interesting case of erythema multiforme bullosum fell to my lot. When first seen the patient's body was covered with large purplish blebs. The mucous membrane of the mouth and conjunctiva were also affected. Though weak the patient showed no other objective symptoms. The treatment given was sodium salicylate with occasional doses of magnesium sulphate.

RAPPORT MEDICAL POUR DE PAKHOI.—OCTOBRE,
1907—MARS, 1908.

Par le Dr. R. ASCORNET.

Nous n'avons que fort peu de choses à dire au point de vue médical pour le Port de Pakhoi et les environs, pour la période comprise entre le 1er Octobre 1907 et le 31 Mars 1908. Les épidémies de peste et de choléra qui ont sévi en 1907, ont pris fin en Septembre, et depuis, nous n'avons pas entendu dire qu'une reprise de ces épidémies, ou l'apparition d'une nouvelle ait eu lieu.

A point de vue Meteorologique, on peut dire que l'année 1907 a été très pluvieuse surtout dans le deuxième semestre. Nous n'avons pas eu de typhon cette année ; le 28 Octobre seulement une queue de typhon qui nous a donné quelques inquiétudes.

Les températures moyennes ont été sensiblement les mêmes pendant les semestres Octobre-Mars 1906-1907 et Octobre-Mars 1907-1908. Pas de phénomènes sismiques à signaler sans un très léger tremblement de terre, du côté de Chap-Sy, qui a coïncidé avec la queue de Typhon.

La population Européenne de Pakhoi s'élevait à environ 60 personnes au 1er Octobre dernier, y compris les Missionnaires de Tien-chao et de Hoi-chao.

Nous n'avons rien à signaler au point de vue Pathologie Européenne. Toutes les affections que nous avons eu à traiter à une exception près étaient en général bénignes. Le plus grand nombre des malades a été fourni par le service des Douanes.

Pas d'épidémie à signaler parmi les Européens ou le personnel attaché à leur service. A noter une naissance en Octobre. Rien non plus de bien particulier à dire au point de vue de la Pathologie Chinoise. Comme nous l'avons déjà dit plus haut, pas d'épidémie de Peste—de Choléra ou de variole à signaler du 1er Octobre 1907 au 31 Mars 1908. Toutefois nous avons constaté après la terminaison de l'épidémie de Choléra de 1907, une recrudescence d'affections gastro-intestinales diarrhée et dysentérie.

TABLEAU STATISTIQUE DE MÉTÉOROLOGIE POUR 1907 ET 1908.

Pakhoi.

Service des Douanes impériales.

	Moyenne Mensuelle des Minimas.	Moyenne Mensuelle des Maximas.	Moyenne Mensuelle de la température.	Moyenne hygrométrique mensuelle.	Pluie totale du mois.	Quantité de pluie tombée le matin.	Quantité de pluie tombée le soir.	Température Maximum du mois.	Température Minimum du mois.	Observations diverses.
Octobre, 1907 ...	22°.5	27°.8	23°.2	85.7	493.8 mm	421. mm	72.8 mm	31°.7	17°	Les températures sont prises sur le thermomètre centigrade. Les Hauteurs de pluies sont comptées en millimètre. La tension hygrométrique est calculée de 0 à 100 ce dernier diffère étant la saturation.
Novembre, 1907.	17°.5	24°.5	21°.05	74	17.5	17.5	...	29°.6	9.4	
Décembre, 1907.	12°.7	19°.7	16°.1	86	78.5	63.5	15	29	8	
Janvier, 1908 ...	14°.45	19°.73	17°.09	81	66.4	45.6	20.8	24°.8	9°.3	
Février, 1908 ...	10.82	15.62	13.22	81	46.7	39.4	6.7	25°	6°.9	
Mars, 1908 ...	14°.55	21°.36	17°.95	70	12.5	10.3	2.2	27°	8°.2	

PAKHOI.

Pakhoi, 2 Avril, 1908.

Medical Officer Customs,

DR. R. ASCORNEY.

Nous signalerons aussi, le nombre toujours croissant d'année en année des cas de Paludisme. Ainsi qu'on le voit par le graphique ci-joint, la Malaria tout en sévissant plus ou moins toute l'année, augmente notablement d'intensité dans les 4 derniers mois. Les cas ne sont en général par très graves, mais relativement tenaces. Cette augmentation du Paludisme est dû croyons-nous au défrichement de plus en plus considérable de la plaine, qui sèche autrefois est maintenant copieusement arrosé d'eau et d'engrais humain et est devenue par suite un lieu d'élection et d'éclosion de moustiques, qui comme on le sait sont les meilleurs agents de propagation de la Malaria.

**KONGMOON HEALTH REPORT FOR SIX MONTHS
ENDING SEPTEMBER 30TH, 1908**

By Dr. JOHN A. McDONALD.

The general health of the foreign community, during the past six months, has been good. Apart from a few mild cases of malaria and one of dengue there has been no illness. There have been no births and no deaths.

The heavy rains in June caused the river to overflow its banks. The water, rising to a height of 15 ft. 5 in., covered the ground floors of most of the houses. Following the flood a few cases of æstivo-autumnal malaria came to our notice. These were not easily amenable to treatment and, in one case, the patient only recovered when removed to another district.

During August and September cholera raged in the city of Kongmoon and the surrounding country. Only one case occurred at the port, however. This was contracted from eating food purchased from a street vendor. The patient made a good, but very slow, recovery.

Several cases of vesicle calculus have come to our notice but, having no hospital, they have been referred elsewhere for treatment.

There has been the usual number of eye cases. Following the suggestion of a fellow-physician, I have been using copper sulphate gr. 5, water oz. 1, with good effect in cases of vascularised corneas.

REPORT ON THE HEALTH OF CHANGSHA FOR THE
HALF-YEAR ENDED 30TH SEPTEMBER, 1908.

By FRANK A. KELLER, M.D.

The writer returned to Changsha at the beginning of this half-year after an absence from China of nearly three years. During these six months special attention has been given to repairing our hospital and putting it in shape for thorough scientific work. We have five small wards: three of them with three beds each, one with two beds, and one single ward, giving us a total capacity of only twelve beds.

These wards have been re-plastered and re-floored and all the floors and woodwork finished with Ningpo varnish. The wards have been furnished with "Lawson Tait" beds fitted up with mattresses, sheets, blankets, and pillows in home style. We have built, also, a room for a laboratory, which we trust will add greatly to the efficiency of our little hospital.

Changsha has a foreign population of 155, of whom 85 are Japanese. While this is the regular number of foreign residents, it by no means represents the actual foreign clientele of the local physicians; in fact the larger half of our foreign attendances during the past six months have been on travellers en route to or from inland cities. Three companies run large steamers up to this port and to Siangtan, thirty miles beyond, and a large number of launches are plying regularly between Hankow, Changsha and Siangtan.

The general health of Changsha has been excellent. There has been only one death among the foreign population, a Japanese teacher who died from cholera in September.

In spite of the severe epidemic at Hankow, and the large steam-boat traffic between the two ports, Changsha has been practically free from cholera; only a few sporadic cases having appeared.

There has been considerable dysentery, but nothing like an epidemic. The cases have yielded very promptly to the following treatment:—A powder of calomel, gr. $\frac{1}{5}$; ipecac., gr. $\frac{1}{10}$, and soda bicarb., gr. 1, given every two hours for from two to four days, and enemata of quinine, gr. 5, in one or two pints of hot water from three to five times daily. The Chinese take to this treatment most kindly if the doctor gives the first enema, and they discover the amount of comfort it affords. Great care must be taken the first time to let the solution run in very slowly and with occasional pauses. After the first enema the Chinese can manage it themselves.

The most common diseases among the Chinese of this locality are tuberculosis, malaria, syphilis, rectal and anal disorders, and of course eye and skin troubles. Tuberculosis is terribly general, and it is very sad to see fine young men perishing who might be cured with proper sanatorium facilities. The people here are remarkably intelligent, and many of them would be willing to follow out a scientific course of treatment were it possible. At present I have a young scholar living up on the mountain side, but his progress is not what it might be with better quarters and skilled attendants. I hope the day may soon come when Hunan will have a large sanatorium for the treatment of the unfortunate victims of this scourge.

The period under review has been marked by the number of accidents which have occurred. The first case, which happened almost immediately on our arrival, was that of a little girl who fell from a loft to the floor below and sustained Colles' fractures of both forearms. This was followed by a series of dislocations, cut throats, burns, etc. There was one lacerated wound of scrotum and testicle, due to a fall down an unprotected air shaft on a Japanese steamer, and one member of the Customs staff had an infected punctured wound of the foot which demanded surgical treatment. The series closed with the case of a Chinese boatman who had never seen a gun. He picked up a gun that a friend had purchased recently, wishing to see how it worked. After firing it he could not find the fragments of the gun, but found his left hand badly lacerated. He is now in the hospital, and I hope to send him out in a few days with a fairly useful hand.

The crops this year have been excellent. The good harvest and general healthfulness are largely due to the moderate heat and rainfall,

details of which may be seen in the accompanying table, for which I am deeply indebted to the Harbour Master, Mr. J. H. Nightingale, who has kindly furnished it.

METEOROLOGICAL TABLE.

MONTH.	THERMOMETER.		RAINFALL. <i>Inches.</i>
	<i>Maximum.</i>	<i>Minimum.</i>	
April	88	44	17.14
May	97	52	4.36
June.....	96	65	7.12
July.....	99	75	2.54
August.....	102	70	5.66
September.....	96	51	1.83

REPORT ON THE HEALTH OF WUCHOW FOR THE YEAR ENDED 31ST MARCH, 1909.

By Dr. PHILIP REES.

During the past twelve months Wuchow has well maintained its reputation for ague. Considering that so many of the native population harbour the malarial parasite in their blood, it is not surprising that a large number of the foreign residents have suffered from one or more attacks. Fortunately these have all been of the benign variety. The pernicious type of malaria is rarely met with in this neighbourhood. It is noteworthy that foreigners living in boats have suffered less than those living on shore. It is the exception for the former to get malaria, while it is the exception for the latter not to get it. The houses of the foreign members of the Customs' staff, from the Commissioner downwards, are unhealthy in situation and unsuitable in style. It is to be hoped that it will soon be found possible to erect new quarters, in which the sleeping apartments are well raised above the ground, on land clear of paddy fields and vegetable gardens.

Apart from malaria the general health of the foreign residents has been good. There has been a remarkable freedom from bowel complaints, such as typhoid and dysentery, and this in spite of the fact that the sanitation of the town remains in just the same neglected condition as in the days of Hippocrates himself. We have not seen a case of plague or cholera in the port for two years.

The native out-patient practice has shown the large number of cases of tuberculous disease customarily met with in most Chinese hospitals. It is curious that amidst so much tubercle we see so few examples of lupus vulgaris or tuberculosis of the reproductive organs. Bright's disease is common. Malaria seems to be insufficiently recognised as a cause of nephritis. It certainly aggravates any existing renal trouble. We are constantly seeing cases which, in symptoms and clinical course, correspond exactly to portal cirrhosis. It is difficult to believe that in a country where drunkenness is comparatively rare, these are all due to the effects of alcohol. It is possible that alcohol

plays a less important part on the ætiology of such conditions than is usually assigned to it in text-books.

A large number of cases of non-malarial remittent fever have come under our notice. The principal symptoms have been fever, uninfluenced by quinine, intense headache, backache, and pains in the limbs, and absence of any rash. The mortality is nil. No doubt this "West River Fever" should be placed in the same category as those known indefinitely as "River Port Fever," "Atypical Dengue," "Seven Day Fever," etc., of which several descriptions have recently appeared in the medical journals. Analogy makes it not improbable that this fever may be found to be due to protozoal infection carried by some blood-sucking insect.

The amount of operative work undertaken has not been large. A few cases of vesical calculus have come for treatment, and these have been removed by the suprapubic method. Vesical calculus is not so common in Kwangsi as in the Canton delta. Towards the close of the year we had an interesting example of the way in which the puncture of an abdominal wound may be closed by a protruding piece of mesentery, and so general peritonitis averted. The patient walked up the steps, waited his turn with the other out-patients and then stated that nine days previously he had been stabbed in the abdomen. On removing his clothes a large fan-shaped mass was seen protruding from a hole just above and to the right of the umbilicus. It was some five or six inches in length, about one inch thick at the base, and covered with bleeding granulation tissue. A quantity of pus was oozing up from the opening and some more pus had burrowed beneath the skin all around. The mass was evidently great omentum. The treatment consisted in ligaturing the base as for an ovarian pedicle, cutting away the omentum and applying fomentations. In a few weeks skin had grown over the site of the wound and the man regained good health. The only result of his accident is the possession of a double umbilicus. In this case, as in many others, the mesentery proved the patient's best friend.

Leprosy is common in Kwangsi, but practically no attempts are made to cope with the evil. The half-starved wretches are allowed to wander up and down the country in search of food, and so the infection is spread far and wide. In order to do something for their relief

fifteen small cottages have been erected on an island some ten miles above Wuchow; the entire expenses being borne by the "Mission to Lepers in India and the East." These cottages are raised some feet above the ground so as to admit of air circulating below and all around. The lepers are thus placed in as favourable hygienic circumstances as possible.

There is some land around suitable for cultivation, and fishing nets have been provided for the use of those not too far advanced in disease.



REPORT ON THE HEALTH OF TENG YUEH FOR THE YEAR ENDED 31ST MARCH, 1909.

By Dr. WIHAI CHAND.

The natural drains help very much in the rainy season, the artificial drains are unsatisfactory. No improved system of cleaning the latrines and taking and disposing of the human excreta from the town is in practice here. Personal hygiene is very much neglected; many people seem to have no idea of it.

METEOROLOGICAL TABLE (LATITUDE 25.2° N., LONGITUDE 98.30° E.)

I am under obligation to Mr. B. Cavanagh, Assistant Examiner, for kindly supplying me with the meteorological table given below:—

MONTH.	YEAR.	THERMOMETER.		Rainfall. Inches.
		Maximum aver.	Minimum aver.	
		$^{\circ}$ F.	$^{\circ}$ F.	
May	1908	77	59	4.46
June	"	75	65	11.32
July	"	77	65	12.92
August	"	80	64	8.76
September	"	80	61	4.87
October	"	79	52	4.37
November	"	71	45	9.37
December	"	73	32	...
January	1909	67	30	1.11
February	"	70	34	...
March	"	76	40	0.11

During the period under report the hottest day was the 7th September, 1908, with the maximum temperature 89° . The coldest day was the 4th January, 1909, with the minimum temperature 22° . The heaviest rainfall was 3.61 inches on the 6th July, 1908. No snowfall. The prevalent wind was S. W., but more southerly during the summer months.

The general health of the port was satisfactory, and that of the foreigners was fair.

Classification of the diseases treated. The number of patients treated was 847 out and 9 in; total 856, viz :—

DISEASES.	Number of patients.	
	Out.	In.
Diseases of the digestion system	129	1
Malarial fevers	112	3
Ulcers	93	2
Diseases of the eye	84	1
" " skin (mostly scabies and ringworm)	80	...
" " respiratory system	45	...
Veneral diseases { Syphilis	39	...
Gonorrhœa	10	1
Worms	39	...
Diseases of the connective tissue	34	...
" " ear	27	...
Local injuries	18	1
Goitre	22	...
Diarrhœa	17	...
Dysentery	7	...
Debility and anæmia	15	...
Tubercular diseases, including tubercle of the lung	12	...
Diseases of the generative system	17	...
" " nervous "	9	...
" " circulatory "	8	...
" " urinary "	7	...
Midwifery cases	10	...
Poisons	3	...
Cancer	1	...
Other miscellaneous diseases	9	...
Total	847	9 = 856

The most prevalent diseases treated during the period under report were: Malarial fevers (most of the cases suffering from this ailment came here from the malarial frontier places of Burma), diseases of the digestion system, of the eye, and of the skin, ulcers, venereal diseases, worms, and goitre.

Three cases shown in the list as "poisons" were of the opium poisoning (all females); two of them recovered and one died. For the latter I was called when my services could be of no help.

Ten cases shown in the list as "midwifery cases" were obstetric cases; all of them had head presentation, and were delivered by forceps; in six cases the children were born alive, and in the remaining four cases dead children were born. During my stay here I have been mostly called for these obstetric cases, and regret to say that I was always called in very late; the patients having all had their labour pains more than four days and up to nine days.

There are no trained or even fairly good country nurses to attend on such cases, and the relatives even do not like to touch women in

labour. Only poor old women help a little in such cases; otherwise they are left entirely to nature. The four cases in which dead children were born, were primipara, and were attended by ordinary old women as mentioned above, who tried to get the children out by force, but in vain, and they killed the children in the womb. After that I was called in, and the dead children were delivered by forceps. All the ten mothers are doing well.

Here it will be better to mention that in 5 out of the 10 above mentioned cases the after-birth came out about 3 to 9 hours after the confinement, and I have come to know that it is a common complaint here, and have also heard that sometimes women lose their lives on account of the placenta not coming out after the birth of the child. I am in a position to say that, though syphilis may be the cause of this complaint to some extent; exposure to extreme cold here does more harm. These are the principal causes, but of course there may be some others besides.

Three cases of "*lepra nodosa*" were seen by me. I have not shown them in the list, as I had not an opportunity of treating them.

One case shown in the list as "*cancer*," is that of an old woman of about 58. The disease is on her right breast, of about 3 years' duration, and is now under treatment.

Twelve cases shown in the list under "*tubercular diseases*," were of *pulmonary phthisis* in different stages, which came under my treatment among out-patients for some time. I regret to note that these people have no idea that this disease is a contagious one, and therefore no attempt is made to prevent its spread. Nearly all, tubercular or non-tubercular, generally spit on the floors, walls, in corners and behind the doors of the rooms. No pot is used for this purpose even in the very clean houses of the rich.

I am glad to note that vaccination is now taking the place of inoculation here, as the people have come to know about the dangerous effects of inoculation, and at the same time have learned to trust in vaccination, which I may say, is due to the efforts of my predecessor, Dr. Ram Loll Sircar, who tried his best to induce the parents to get their children vaccinated, and who vaccinated many with excellent results during the past six years. During this winter season I have vaccinated 92 cases, all with successful results.

The following is a list of surgical operations performed during the period under review:—

<i>Name of operations.</i>	<i>Method.</i>	<i>No.</i>
Dental operation...	... Extraction of teeth ...	23
Other dental operations ...	... Opening of gum boils by free incision ...	3
Evacuation of abscess ...	... Opened by free incision and drainage ...	12
Operation on joints ...	... Amputation of first and second metatarso ...	1
	Phalangeal articulation of the right foot by circular incision. Amputation of one phalangeal articulation of the hand by circular incision ...	1
„ bones ...	{ Removal of necrosed pieces of bones by incision ...	1
„ anus ...	{ Excision and ligation of external and internal piles ...	1
„ male generative organs ...	{ Removal of impacted stone of an abnormal size from the urethra (under chloroform) ...	1
Total ...		43

Though generally the people are afraid of operations I am glad to note that they can bear pain much better than foreign patients; for instance, I was called to the Taotai's Yamên to attend his female cook, who had caries in three of her teeth (lower molar, 2 right D and 1 left). She had been suffering from attacks of toothache for a long time. She was 28 years old. She requested me to take out all these 3 teeth, which were very firm. I then extracted all of them one by one, but she never told me even once that she was feeling pain.

There was no dispensary here before January, 1903. In January, 1903, Doctor Ram Loll Sircar was appointed medical officer here; it was he who made the dispensary and foreign treatment somewhat popular among the people, and they now have some belief in foreign treatment, as is shown by the list of patients treated.

The town is about 5,365 feet above the sea level. The climate in summer is not very hot, and the winter nights are cold, but during the day the sun is warm. On the whole, the climate is very healthy. The rainy season lasts about 4 to 5 months, but there is comparatively very little malaria here. The water supply is obtained from wells, sufficient in quantity and good in quality.

There has been no outbreak of any contagious or infectious disease, such as small-pox, enteric, typhus, scarlet fever, plague, cholera, or diphtheria, etc., during the period under report.

TENG YUEH, March, 1909.

REPORT ON THE HEALTH OF KONGMOON FOR THE SIX MONTHS ENDING MARCH 31ST, 1909.

By Dr. J. A. McDONALD.

During the past six months there have been several cases of malaria, mostly of the tertian form, one of pleurisy, one of bronchitis, and one of cardiac trouble among the foreigners at Kongmoon.

We have not seen many definite cases of malaria among the natives. As a rule we find they do not present themselves for the treatment of the disease, but for the resulting anæmia, etc. Practically all the cases treated were simple tertians, responding readily to full doses of quinine.

There has been less small-pox than usual this spring. Most of the cases have occurred in that part of the native city lying on the north side of the river.

During our first year here we were called to only one obstetrical case among the Chinese. In this branch there seemed to be a very strong opposition to the foreigner. This has been changing lately and, within the past month several calls have come from distant villages. Two of these were women with deformed pelves. Both were primiparæ, aged respectively 38 and 19. As the children were dead when called a craniotomy was performed in each case. The first was seen twenty-four hours after labor began and made a good recovery. The second was not seen until three days after labor began and was in a worn out condition. She is still under observation, and little hope is entertained of her recovery.

KONGMOON, March 31st, 1909.

REPORT ON THE HEALTH OF ICHANG FOR THE SIX MONTHS ENDED THE 31st MARCH, 1909.

By Dr. ANDREW GRAHAM.

These months, following as they did on a particularly trying summer, have been characterized by a great amount of sickness.

The foreign community did not participate in this to the same extent as the native. During the summer Ichang was visited by a very severe epidemic of Asiatic cholera, and there were two deaths in the foreign community. In the native there are said to have been many hundreds. This too was accompanied by a rather worse malarial season than usual, and many who have come to the Ichang hospital recently have complained only of general weakness and anæmia following on these diseases. Malaria seems to have come and determined to stay, as during the coldest months we have had cases coming for treatment; whereas a few years ago it was a rare thing to meet a case of malaria during the winter months. This has been a particularly mild winter, and mosquitoes have been much in evidence, and this doubtless accounts for the cases seen. The type of malaria seen has, during the last few years, undergone a change, and the proportion of malignant and quartan to simple tertian is more than formerly.

We are greatly delighted with the accuracy of diagnosis obtained in the staining of blood films by the Lishman's modification of Romanowsky's method. The tabloids of these stains, supplied by Burroughs and Wellcome, are very satisfactory.

During the months of December to March we have had epidemics of small-pox and diphtheria. It is said that nearly 2,000 children have been carried off by one or other of these diseases. The Chinese in these parts have not many "conscientious objectors" in their ranks, and so we have many coming to avail themselves of the protection afforded by vaccination. This too is being carried out on a large scale at the Pei Yun Tang (培元堂) in the city, and there it is carried on from person to person; the one who gives the vaccine receiving the fee of 100 cash charged. The Chinese, living as they

do in such an overcrowded condition, form a very congenial soil for the growth of this bacillus. Phthisis is very common, and in our hospital much of the bone and joint disease is tubercular. The various forms of tuberculosis seem to be on the increase.

CASE OF INFANTILE SCURVY IN A CHILD OF SIX MONTHS.

I was called to see this baby because of a swollen and painful knee, which on examination was found to be only slightly swollen, but very painful on movement; the baby crying on the slightest movement. There was no rise in the general temperature, but the affected joint felt hotter than the other. There was some tenderness of the gums present. The baby had, for several months, been fed entirely on proprietary foods, both tinned milk and dry foods. The diagnosis of scurvy was confirmed by the rapid improvement on the following treatment :—

Potato pulp beaten up with milk given every three hours.

Orange juice several times a day.

Cow's milk only, instead of the tinned foods he had been having.

In eight days the swelling had gone down and there was no tenderness on movement.

**RAPPORT MEDICAL POUR LE PORT DE PAKHOL,
DECEMBRE, 1908—MARS, 1909.**

PAR LE DR. POUTHION.

Pathologie Européenne.

Pendant le mois de Décembre trois consultations ont été données à un employé européen pour conjunctivite et corps étranger de l'oeil (grain de poudre). L'extirpation de ce corps étranger a guéri de son affection qui revenait périodiquement, ce fonctionnaire européen.

Durant le mois de Janvier un enfant atteint d'embarras gastrique et un fonctionnaire atteint de fièvre et céphalagie ont été soignés.

Durant le mois de Février un enfant a présenté du fait de l'évolution de ses dents de très légers troubles qui ont motivé deux visites.

Pendant le mois de Mars la femme d'un employé européen a eu une fausse couche de trois mois avec expulsion d'un oeuf gros comme une orange ; cette affection a motivé quatre visites et une semaine de repos au lit.

Un fonctionnaire atteint d'embarras gastrique et fièvre a été pendant 4 jours indisponible.

Enfin un fonctionnaire atteint d'hypertrophie de la prostate avec incontinence d'urine et d'une hydroule qui a été ponctionnée et traitée par une injection modificatrice iodo-iodurée a reçu 11 visites à domicile.

Pathologie Indigène.

Il n'y a pas à signaler pendant ce semestre d'épidémies, ni parmi le personnel des douanes ni parmi l'élément indigène de la population.

Un lettré de la douane, fumeur d'opium, atteint de cachexie paludéenne se manifestant par de l'ascite, une insuffisance rénale et de l'œdème des membres inférieurs, après un mieux relatif diurne, diminution de l'œdème, cœur plus régulier et pouls mieux frappé a été atteint de diarrhée profuse et est mort le 30 Décembre.

Un autre lettré a été atteint d'une fracture de la phalangine de l'annulaire droit et un autre a été atteint de conjonctivite double.

Un charpentier a été atteint d'arthrite traumatique du poignet gauche et a été soigné par massage et l'acupuncture.

Un Matelot a été traité pour contusion des reins après une chute faite dans une jonque en surveillant le débarquement des marchandises d'un vapeur en rade.

2 autres matelots ont été soignés l'un pour bronchite l'autre pour pneumonie, un autre a été traité pour embarras gastrique.

Enfin la femme d'un lettré nous a fait appeler à 6 heures du soir le 8 Février à la suite d'une absorption par les voies digestives dans un but de suicide d'une certaine quantité d'opium. Nous sommes arrivés dès l'appel de son mari auprès d'elle et avons constaté les symptômes ordinaires de l'empoisonnement par cette substance: les pupilles étaient contractées, la peau froide, les lèvres cyanosées, la respiration lente irrégulière, le pouls petit et lent faible et depressible. Les mâchoires étaient contractées. Nous avons dû les ouvrir avec un écarteur, enfoncer la sonde stomacale et procéder à un lavage de l'estomac, administrer un vomitif, pratiquer une injection sous cutanée de sulfate d'atropine. Nous avons fait de la révulsion sur les membres inférieurs et fait respirer de l'ammoniaque. La malade a été au bout d'un quart d'heure sortie de son coma et a pu une demi heure après notre arrivée reposer sans crainte de complication. Une decoction de tannin et de café très fort a rétabli complètement la malade.

Nous n'avons rien autre à signaler d'intéressant les femmes et les enfants des employés de la douane viennent en effet à la consultation de l'hôpital français recevoir des soins et nous ne les avons pas inscrits à part: ils viennent assez souvent et fournirent un certain nombre de consultants parmi les 14,025 indigènes qui durant l'année 1908 sont venus à l'hôpital Français.

Un rapport annuel fourni à notre gouvernement général d'Indo Chine a longuement étudié les questions diverses qui intéressent le post medical de Pakhoi et le fonctionnement de l'Hôpital Français dans cette localité.

REPORT ON THE HEALTH OF NINGPO FOR THE PERIOD
1ST APRIL, 1907, TO 31ST MAY, 1909.

By Dr. CHARLES FISHER MILLS.

The following report covers the period of time commencing April 1st, 1907, and ending May 31st, 1909.

The winters have been mild and the snow fall very small ; practically none during the last one. The temperature was not low enough to allow ice to form, and only a small quantity of skin ice has been stored:

The maximum summer temperature has not exceeded 99° Fahr. in properly shaded places. For about three weeks or a month at the end of the season the temperature is steadily maintained above 82° Fahr. through the entire twenty-four hours.

During the summer of 1907 the supply of water failed on account of prolonged dry weather. To in some measure meet this lack, water was brought from Shanghai in the tanks of one of the tri-weekly steamers and distributed through the good offices of the Acting Commissioner. The canals were quite dry and hard-baked by the continued sunshine.

As there was an epidemic of cholera prevailing, the heavy rain fall, which later ensued, undoubtedly did a most valuable service in preventing an increase in the distribution of the outbreak. It is somewhat remarkable that this epidemic terminated as quickly as it did without a marked fall in the atmospheric temperature.

Statistics of the mortality resulting from the epidemic are not available. The severity of the type of cholera and its frequency may be imagined from a saying current among the Chinese that "there was a death every two minutes" for some days at least. Most of these cases were in or near the native city. The fatalities were said to occur most frequently just outside the gates of the city. A few cases were reported in the settlement, but only a small number made application for foreign medical treatment at the hospitals.

There did not appear to be any distinct focus of origin of the infection, and deaths were taking place in different localities at the same time. The Chinese staff of the post office lost one member by cholera.

Enteric or typhoid fever appears sporadically from time to time. One tidewaiter, with this malady, was taken to the Shanghai General Hospital, where he soon succumbed to the severity of the disease. One Chinese lighthouse attendant reported too sick for duty, and died after a few days at his home.

Diphtheria.—The few cases known to have existed have resulted fatally where treated by native doctors and without antitoxin. All the cases in which antitoxin was used made a rapid recovery.

Parotitis.—An epidemic of a disease resembling mumps, but without any of the common sequelæ of metastasis, prevailed at one season among the Chinese. The native doctors did not have a name for the disease, and considered it to be unlike mumps.

Small-pox is endemic at all seasons of the year. Its presence is most commonly made known by the appearance of the convalescent ones upon the streets.

Vaccination is performed gratuitously at the police station, and considerable numbers have presented themselves or their children for this purpose, especially during the months of spring.

The vaccine used has been that prepared at the Municipal laboratory of the health department at Shanghai, and it has proved satisfactory.

Miscellaneous Diseases.—The following named diseases have been met with: Influenza, one; chronic alcoholism with delirium tremens, one; tapeworm, one; abscess of liver, two (one death); beri-beri, one (death); scarlet fever, one, contracted at another outport. A few mild cases of varicella, pertussis, rubeola, and intestinal parasites have been noted.

Suicide.—Two attempts at suicide by taking Fowler's solution of arsenic have been frustrated by prompt antidotal treatment. No cases

of opium poisoning have come under treatment unsuccessfully. During the last year no instance of an attempt at self-destruction by this drug has been met with.

Childbirth.—The pregnancies occurring among the married foreigners resident here have terminated as follows: One miscarriage in a first pregnancy; one abortion in a second pregnancy, associated with uncontrollable vomiting; one premature labor at the seventh month of a first pregnancy, the child and mother doing well; one first pregnancy late in life required instrumental delivery on account of uterine inertia; one precipitate labor, terminating a third pregnancy; one transverse presentation with placenta prævia, the placenta being completely extruded at commencement of labor. Decapitation and instrumental delivery were rendered necessary on account of a uterine constriction ring. The mother had a slow convalescence. One "dry" labor in a first pregnancy, one precipitate labor in a third pregnancy, one normal delivery in a second pregnancy. Among the remaining labors, not personally attended, two were probably normal deliveries.

Rare Forms of Fever.—In a mission school for girls there has been, on three occasions, a group of girls sick at the same time with an unclassified form of fever. The most prominent symptom was pyrexia, maintained for from four to fourteen days at 101° to 105° Fahr. Lassitude and anorexia were not marked. Gradual recovery by lysis followed without sequelæ. Quinine and phenacetin had no especial effect in lowering the temperature. Microscopic examination of the blood did not disclose anything abnormal.

Malarial disease is prevalent. Only the tertian variety is known to exist. The type is a benign one, although pernicious forms resulting in death are occasionally found. Over thirty per cent. of all the certificates issued for physical unfitness for duty are due to this illness.

This exceeds the total number of disturbances and diseases of the digestive system which form a large proportion of the causes for absence from duty. The number of working days lost to the service in twenty-seven months is equal to the absence of one man from duty for one year, solely from malarial fever.

One reason for such a frequent occurrence of this disease is due to the fact that the water supply for household purposes is stored in open kongs which stand near the dwellings. These are the breeding places of mosquitoes, whose bite, when themselves are infected, causes the typical paroxysm of this fever. Another reason is the wellnigh universal neglect to provide the doors and windows of dwelling houses with fine mesh wire screens for excluding insects. While the unfavorable local conditions cannot at present be entirely removed a distinct improvement might be made by having all water kongs provided with well-fitting covers or fine wire screens. The wire gauze for this purpose should be so woven that no opening between the wires should exceed one-twentieth or one-sixteenth of an inch square. This is fine enough for protection for doors and windows and yet admits sufficient light and air. The keeping of a few gold fish in a water kong will pretty thoroughly provide for the destruction of the undeveloped mosquitoes.

The periodical administration of quinine with the idea in mind of preventing the attacks of fever seems to be sufficiently well proven. The dosage however is a matter which is not definitely settled. Seven grains of quinine, taken at bed time, two or three times a week, is probably more efficient than a daily dose of two to four grains. By many authorities the first mentioned dose would be considered a minimum one.

The prevalence of abnormally low temperatures in those who have been subject to malarial fever for a number of years is noted. Morning temperatures of 94° to 97° are common. There is an accompanying depression of spirits and disinclination to undertake any form of mental or bodily activity. Occipital headache and tenderness on pressure over the cervical spine is sometimes found in these cases.

It is suggested that the new quarters for the members of the staff at this port be provided with suitable wire gauze screens during the months when mosquitoes are present.

It is worthy of recommendation that the men on duty on shore and patrol duty on the river at night should take prophylactic doses of quinine as above noted.

NINGPO, May 31st, 1909.

REPORT ON THE HEALTH OF CHANGSHA FOR THE
YEAR ENDING SEPTEMBER 30TH, 1909.

By E. H. HUME, M.D.

So far as can be judged from the reports of Customs and other surgeons health conditions in Changsha are certainly as good as in other ports along the Yangtze valley in Central China.

During the year under review only one case of serious illness occurred in the foreign community (numbering over 150, including Japanese). The patient was an American child of three years, who died after an illness of but twenty hours' duration, with symptoms resembling those of ptomaine poisoning.

INFECTIOUS DISEASES.

1. *Diphtheria*.—In November, 1908, the local papers announced that diphtheria was breaking out in several parts of the city, and a little later it was specifically stated that a certain school was badly infected. Foreign physicians accordingly laid in an abundant supply of antitoxin, but only a very few cases were actually seen by them.

2. *Mumps* was prevalent in the city during April and May; schools especially being centres of infection. Three foreigners are known to have become infected here.

3. *Measles* and scarlet fever have also been quite prevalent, and fatalities have been chiefly due to the Chinese ignorance of the danger of exposure. Many cases of tuberculosis of the lungs have developed after measles.

4. *Malaria*.—As contrasted with the general prevalence of malaria in nearly every other port in Central China, Changsha is singularly free from malarial fevers. And, as might be assumed, the anopheles mosquito is practically never seen within the city. In three years I have seen only one specimen of anopheles within the walls. The reason for this singular freedom from malaria is to be made the subject of a special study during 1910.

In hospital work it may be almost taken for granted that a patient who comes in with malaria (true malarial fever being meant by the term "malaria") has gotten his infection elsewhere. This was well illustrated during the past week by the case of a soldier, who stated that he was a Changsha man by birth and training. He had been ill for twenty days, resident here all that time. True malarial parasites were found in his blood, and when questioned still more in detail, he acknowledged that he had been on duty at Yochow ten days previous to the beginning of his illness. This period would correspond to the period of incubation. The following table will give an idea as to the relative frequency of malarial infection of all types (including chronic splenic enlargement, etc.) in Changsha, in Ts'ing-kiang-pu, on the Grand Canal, and in a hospital chosen at random in Southern India.

		Total number of new out-patients.	Total number with malarial infection.	Percentage of malaria.
Yale Hospital, Changsha	...	1,326	11	0.83
Tsing-kiang-pu Hospital	...	7,692	1,355	17.62
Vellore Women's Hospital (Southern India)	...	10,720	374	3.48

Hospital reports from other parts of Hunan, e.g., from Changteh, from Shenchow, from Yungchow, etc., show malarial fevers to be quite prevalent at these places. In the outlying districts, at a distance from the city of Changsha, anopheles mosquitoes and malaria are always present.

5. *Typhoid Fever*.—Hospital statistics in Changsha show a larger number of admissions as in-patients due to typhoid fever than to malarial fever. It is not long since medical men in many parts of China used to declare, as they did in India for many years, that typhoid fever was not to be seen among the natives. This was thoroughly disproved in India some years ago, and it is certainly ruled out of court as an opinion of value in China to-day. It is almost certain that the occasional cases of typhoid fever that one hears of among foreigners are due to infection from the Chinese.

PARASITIC INFECTION.

Purely aside from the cases of infection with the round worm, which occur commonly enough among both Chinese and foreigners, many cases are seen of illness due to infection with other parasites; one rather deadly and prevalent variety of parasite is the fluke known as *Schistosomum japonicum*. This has been found in Changsha and throughout the province and baffles ordinary methods of treatment.

Appended to this report is a meteorological table, kindly prepared for me by Mr. J. H. Nightingale, the harbor-master, to whom I am indebted for the trouble taken.

METEOROLOGICAL SUMMARY.

Port of Changsha, October, 1908, to September, 1909, inclusive.

<i>Month.</i>	<i>Mean of Max. Thermometer.</i>	<i>Mean of Min. Thermometer.</i>	<i>Rainfall. Inches.</i>
October, 1908.....	70.5	60.5	2.51
November	64.	48.	9.11
December	58.	42. ....	.83
January, 1909.....	40.	34.5	2.13
February	54.	43.5	1.28
March	54.	44.	2.90
April	70.	60.5	5.54
May	78.5	70.	5.78
June	83.	72.5	8.90
July	94.	80. ....	.23
August	92.5	81.	3.49
September	86.	73.5	2.21

REPORT ON THE HEALTH OF CHUNGKING FOR THE
YEAR ENDING 30TH SEPTEMBER, 1909.

By C. W. FREEMAN, M. D.

For the year ending September 30th the general health of the foreigners resident in the port of Chungking has been excellent. We have now in the port more than 200 foreigners, of whom 20 are young children. There has been no death nor any serious illness. The climate is a trying one. Owing to the proximity of the hills on the opposite side of the river 23 bungalows have been built and 4 more sites have been purchased. These bungalows are filled during the hot months, and some of the people make use of them for the weekends during the greater part of the year. There can be no doubt that without these the report would not be such a favorable one. The past summer has been a very cool one compared to that of the year previous. For the month of August frequent showers caused a break in the weather every few days. The only long continued heat was in September. As a result the foreigners stood the summer remarkably well.

Among the natives I see no difference from the preceding year. True this year we saw no cholera as we did in the year 1908. We were a little fearful lest earlier in the year than we can possibly get the infection from down river we might find some of the Chinese bringing out the disease from some of the old clothes of the previous years' victims, but we saw no cases at all. There is a great probability that our port will not be so free from this disease when we have the regular arrivals of a steamer from the down river ports. Should cholera ever get a foothold in our crowded city in the early summer, before the cooler weather would assist in stopping its spread, the death rate would be very high indeed.

Tuberculosis is the prevailing disease. The number of the Chinese not having this disease is very small. The theory held by some "that in all men there are the germs of tuberculosis" might easily have some exponents in China. Certainly of the hospital surgical cases a great

majority are this disease in some shape. Malaria comes next, rheumatism and dysentery in order from the hospital report. True this has left out of account the use of santonine. The use of this might be said to be only a matter of routine. All need it. Hookworm disease is seen and recognized in an increasing number. Some cases of fever are seen that are most puzzling. By examination they are not malaria nor typhoid nor apparently are they typhus, yet they are most difficult to get under control. Last year one case did give the Widal reaction.

Small-pox of course rages. Free vaccination has been offered here for the last 5 years, but except from apparently the educational standpoint it has not proven a great success. The numbers last year were fewer than the preceding year. However the Chinese are buying the vaccine themselves—some of the wealthier ones. The doctors buy it to some extent, to be certain of the pure disease to start their inoculation, I should think as the purchase is made in the beginning of their season and not repeated.

In the city many of the wealthy Chinese are building houses of foreign style of architecture. Some of these are 3-story high, and in these there is an example that is followed by some of the others by adding an additional story to their native house. This additional fresh air is a good thing. Some of the wealthier are purchasing milk and cod liver oil, and so the tubercular condition is being met partly at least.

During the year I had my first case of stone-in-the-bladder. This is very rare in this part.

Chungking has quite a trade in skins and hides, but as yet I have heard of no case of anthrax.

The number of cases treated in one of the hospitals for the breaking of the opium habit was 61. There does not seem to be any increased number of these cases coming to us over the previous years.

The following meteorological observations have been kindly supplied by the Harbour Master, Mr. F. G. Beeke.

METEOROLOGICAL TABLE. OCTOBER, 1908, TO SEPTEMBER, 1909.

(Latitude 29° 34' N., Longitude 106° 31' E.)

MONTH.	BAROMETER.		THERMOMETER.			RAINFALL.		RIVER.	
	Highest.	Lowest.	Average Maximum.	Average Minimum.	Average Mean.	Days on which Rain fell.	Inches.	Highest.	Lowest.
	Inches.	Inches.	°F.	°F.	°F.		Inches.	Ft. in.	Ft. in.
October ...	29.607	29.030	83	54	67.27	9	3.46	31 8	17 8
November ...	29.815	29.201	69	48	57.80	4	4.98	33 6	16 3
December ...	29.849	29.292	63	40	50.32	3	0.63	9 8	3 4
January ...	29.810	29.247	59	39	47.34	4	0.28	3 2	1 4
February ...	29.924	29.212	64	39	50.62	1	0.27	2 3	0 4
March ...	29.890	29.032	72	48	58.39	3	1.37	1 4	0 4*
April ...	29.768	29.026	92	54	67.93	2	4.42	4 1	0 3*
May ...	29.567	29.130	92	57	71.98	5	5.07	18 7	3 3
June ...	29.285	29.819	98	68	77.38	10	13.00	38 2	7 1
July ...	29.307	28.814	105	70	84.29	3	9.10	71 10	34 0
August ...	29.354	28.922	99	70	82.61	4	5.81	73 3	20 4
September ...	29.468	29.004	104	64	79.98	5	6.66	51 0	16 8

* below zero.

REPORT ON THE HEALTH OF TENG YUEH FOR THE SIX MONTHS ENDED 30TH SEPTEMBER, 1909.

By Dr. N. CHAND.

Sanitary Condition.—There is nothing noteworthy under this heading, as no attention has been paid during the period towards improving the drainage, latrines, and personal hygiene, etc.

Meteorological.—The following table shows the meteorological readings taken at this port :—

MONTH. 1909.	Thermometer Aver.		Rainfall. Inches.
	Maximum.	Minimum.	
April	74.10°	49.76°	3.77
May	76.64	59.12	5.51
June	76.27	62.90	14.73
July	78.74	63.06	7.13
August	76.42	62.45	11.79
September	84.70	62.53	5.37

The highest reading of the thermometer was on the 21st September, 1909, when it registered 95°, which is exceptionally high this year; the highest rainfall was 2.83 inches on 27th June, 1909.

General health of the natives and that of the foreigners during these summer and rainy months was fair.

The total number of patients treated during this period was 494 (490 out- and 4 in-patients).

The following table gives the classification of the diseases treated :—

DISEASES.	Number of Patients.	
	Out.	In.
Malarial fevers	122	2
Diseases of the digestive system	80	...
" " skin	58	...
" " eye	36	...
" " respiratory system	17	...
" " nervous	8	...
" " circulatory	5	...
" " generation	6	1
" " urinary	5	...
" " connective tissue	11	...
" " ear	5	...
Ulcers	28	...
Local injuries	14	1
Debility and Anaemia	16	...
Dysentery	11	...
Veneral diseases { Syphilis	7	...
{ Gonorrhoea	12	...
Worms	23	...
Goitre	14	...
Midwifery cases	3	...
All other diseases	9	...
Total	490	4

The most prevalent diseases, treated during the period under report, were malarial fevers, diseases of the digestive system, of the skin and of the eye, ulcers and worms. Most of the malarial patients treated in the dispensary were Chinese who had come here from Bhamo or neighbourhood. On account of plague, which broke out in Bhamo at the end of May, and which lasted until August, most of the Chinese left the infected region, returning to their homes in their native country. As this occurred during the rainy season, and as they had to travel through the low and damp valleys of the Bhamo-Tengyueh road, which are malarial, few escaped this sickness. I must say that though numerous, most of these cases were not of a severe form. However some of the diseased, after having undergone every sort of Chinese treatment, were brought to me by their relatives in a hopeless condition. I have been successful in restoring health to nearly all such cases, with the exception of one, who was practically dead when I attended him. Salines and big doses of quinine, together with an improvement in their general sanitary conditions, cured all the above cases of malaria. I may mention that many cases of even one month's sickness were cured with a single dose of 20 grs. of quinin sulph.

Syphilis.—The people here say that syphilis is a disease imported from Burma, and therefore they call it also a foreign disease, Yang-mei-ch'uang (楊梅瘡). But I doubt this, as I have seen some syphilitic (males and females) who have never been in Burma. I also hear that these patients do not generally like to come for treatment, as they feel ashamed.

Goitre.—Very satisfactory results have been secured in the treatment of goitre with preparations of iodine, both internally and externally.

Worms.—I have treated only one patient for tape worm since I am here; all the others were suffering from round worms, children as well as adults. I think the cause of this common complaint here is due to the use of liquid manures for growing vegetables, and the washing of them in the stagnant or dirty water.

Three Midwifery Cases.—They all were obstetric ones; had head presentation, were primæpara and were delivered by forceps; in one case the child was born alive and in the two others dead children were born. All the three mothers are doing well. Besides these I was called to attend on two other obstetric cases, on different occasions, but

whilst I was going to their homes, message in both cases met me on the way, informing me of the deaths of the women concerned.

No case of poisoning has been treated; on one occasion I was called to attend on a woman, who had taken opium, but when about to leave my house, I was told that the woman had just died. By reading these few lines one will note that the people send for the foreign doctor so late that his services are nearly useless.

In-door Patients.—Three out of the four in-patients were Customs employees and one layman.

Surgical Operations.—The following operations were performed during the period under review:—

Evacuation of abscesses	9	Tapping for hydrocele	1
Extraction of teeth	7	Removal of impacted stones from	
Opening of gumboil	1	urethra	2
Delivery by forceps	3	Removal of foreign body from one	
Circumcision of phimosis	1	metacarpophalangeal articulation...	1
Stitching of the coverings of the			
testicle	1	Total	26

All the above operations were successful.

Miscellaneous Notes.—I am glad to note that these people are getting more and more belief in foreign treatment. They think it a blessing to have it available here, because they can have another chance to cure after having tried every sort of Chinese treatment without success. Besides minor ailments, at present the people prefer the foreign treatment for obstetric cases, complicated malarial cases and for surgical diseases, as the native Chinese doctors have got no training to attend on such cases.

The rains this year began earlier, the summer heat has not been very excessive, but sometimes there have been sudden changes in the weather on account of heavy rain, wind and warm sun, which caused the foreigners on few occasions to suffer from chill, etc.; otherwise there has been no other disease among them.

Though many men came here from Bhamo, while there was an epidemic of plague there, no case has ever been seen or heard of here or in the neighbourhood, nor has any other contagious or infectious disease occurred during the period.

RAPPORT MÉDICAL POUR LE PORT DE PAKHOI.
AVRIL-SEPTEMBRE, 1909.

Par le Dr. PONTIGNON.

Pathologie Européenne.—Pendant le mois d'avril nous avons eu 4 malades, 2 hommes et 2 enfants avec 22 consultations. Un homme était atteint d'une affection des voies urinaires, un autre d'une affection du tube digestif, un enfant d'une affection des yeux et un autre enfant d'une affection du tube digestif.

Pendant le mois de Mai nous avons eu 4 malades; un homme, une dame et 2 enfants avec 12 consultations. Un homme a été atteint d'une affection du système circulatoire, les 2 enfants d'une affection du tube digestif et une dame d'une affection des organes génito urinaires.

Pendant le mois de Juin nous avons eu 8 malades à soigner avec 33 consultations: 2 hommes, 2 dames et 4 enfants. Un homme a été atteint d'affection du système circulatoire un autre d'une affection du tube digestif: une dame a été atteinte d'œdème, et anémie, une autre d'une affection des organes respiratoires, un autre a été atteint d'une affection de la peau et les deux autres d'une affection bénigne des fonctions digestives.

Deux des malades du mois de Juin atteints, le mari d'une affection du système circulatoire maladie de cœur et phlébite la femme, d'œdème et anémie, ont été évacués sur l'Hopital du Pic de Hongkong pour y être soignés et bénéficier des avantages d'un changement d'air et de température.

Pendant le mois de Juillet nous avons eu 5 malades avec 25 consultants 3 hommes dont 2 atteints d'affection du tube digestif et un atteint de paludisme, une dame atteinte d'affection des voies genito-urinaires et un enfant de troubles digestifs.

En aout nous n'avons eu que 5 malades avec 6 consultations, 2 hommes, une dame et 2 enfants. Un homme était atteint d'une affection du tube digestif un autre d'une affection des voies urinaires. Une dame a présenté, après un accident dont elle avait été atteinte le mois précédent, de l'anémie; les deux enfants ont présenté l'un une indisposition légère de l'intestin, l'autre une plaie du doigt sans gravité.

Enfin au mois de Septembre, nous n'avons eu à donner que 11 consultations au personnel Européen des douanes impériales : 4 hommes, une dame et un enfant ont été visités pour des affections peu graves : deux hommes et une dame pour des troubles digestifs, un homme pour anémie, un homme pour paludisme et l'enfant pour une légère bronchite.

Somme toute les mois de Juin et de Juillet ont été les mois où nous avons eu le plus grand nombre de malades et le plus grand nombre de journées d'indisposition c'est donc pendant ces deux mois qui d'ailleurs ont été très chauds et où il y a peu de pluie cette année que l'état sanitaire a été le plus défectueux.

Pathologie Indigène.—Depuis le 1 Janvier nous avons enregistré sur notre cahier de consultations de l'Hôpital Français de Pakhoi 32 malades employés indigènes ou membres de la famille avec 90 consultations. Deux de ces employés atteints l'un de tuberculose pulmonaire, l'autre d'œdème et de cachexie paludéenne sont morts. Depuis le 1er avril nous avons enregistré 20 employés subalternes : 3 lettres ont été soignées pour embarras gastrique et bronchite.

La fille d'un employé indigène de la Douane, âgée de 10 ans atteinte de peste bubonique est morte après 2 jours de soins.

Epidémiologie.—La peste en effet a apparu le 22 avril pour ne cesser que le 1er Juillet : elle a donc sévi pendant plus de 2 mois, en mai et Juin surtout c'est l'époque ordinaire de son apparition si bien que on peut dire que Pakhoi est un foyer endémique de cette maladie. Elle se réveille tous les ans pendant les mois de l'année favorables à son éclosion.

Le tableau suivant du nombre approximatif des décès dus à cette maladie qui a été dressé par renseignements et pour certains par les jours de soins donnés, nous montrera l'importance de l'épidémie.

22 Avril, 2 décès	17 Mai 2 décès	9 Juin 1 décès
1 Mai 2 décès	19 Mai 2 décès	10 Juin 1 décès
3 Mai 4 décès	21 Mai 1 décès	11 Juin 2 cas 15 décès (2 guéris)
4 Mai 2 décès	22 Mai 2 décès	12 Juin 1 décès
5 Mai 3 décès	24 Mai 2 décès	13 Juin 1 décès
6 Mai 1 cas (guéri)	27 Mai 1 décès	14 Juin 2 décès
7 Mai 2 décès	28 Mai 1 décès	16 Juin 1 décès
8 Mai 2 décès	29 Mai 1 décès	18 Juin 2 décès
9 Mai 2 décès	31 Mai 1 décès	20 Juin 1 décès
10 Mai 1 décès	3 Juin la peste est singa- lée à Pak cha Chong village des environs.	24 Juin 1 décès
11 Mai 2 décès	4 Juin 2 décès	26 Juin 2 décès
12 Mai 2 cas (2 guéris)	5 Juin 7 décès	27 Juin 1 décès
13 Mai 2 décès		29 Juin 1 décès
14 Mai 2 décès		

1er juillet 1 décès, l'épidémie est finie. au total 87 cas dont 82 décès, 5 guérisons.

Si l'épidémie n'a pas été plus meurtrière c'est que beaucoup de personnes de l'entourage des malades ont reçu des injections préventives de lymphé serum de Haffkine et des injections de serum antipesteux de Versin. Un certain nombre d'indigènes employés du personnel européen de la douane impériale a profité des injections préventives, pratiquées tous les matins de 10 à 11 heures à l'Hôpital Français pendant l'épidémie : ces injections donnent une immunité d'environ 4 mois contre la peste. Nous n'aurions pas eu à enregistrer un décès dû à la peste bubonique dans la famille d'un des membres du personnel indigène, si ce personnel dès l'apparition de l'épidémie venait lui-même et amenait les personnes de son entourage recevoir une dose de serum préventif : cette inoculation est peu douloureuse et faite dans des conditions d'asepsie convenables ne provoque ni réaction inflammatoire notable ni abcès. Sur plus de 700 inoculations pratiquées cette année nous n'avons en effet constaté qu'un cas ou de la pympiangite s'est déclarée et ne fut pas suivi d'abcès.

Dans ces conditions il serait à souhaiter qu'au moins le personnel indigène, appelé par ses fonctions à manipuler dans les entrepôts, des marchandises qui pourraient être souillées, ou aller à bord surveiller des marchandises embarquées ou débarquées soit obligé d'être, dès qu'un cas sera signalé, soumis à l'inoculation d'une dose de lymphé serum de Haffkine dont l'emploi si bienfaisant est devenu courant dans les Indes anglaises pour protéger contre les épidémies de peste les personnes qui s'y soumettent.

REPORT ON THE HEALTH OF KIUKIANG IN 1909.

By Dr. A. C. LAMBERT.

Although 1909 was an unhealthy year in the Yangtze Valley yet the settlement and port of Kiukiang remained remarkably free from epidemic disease. This in part was due to the fact that most of the women and children in the port, particularly those of unmixed European parentage, removed to the hill station of Kuling before the hot weather arrived. It is interesting, however, to note that there was very little sickness amongst the children who remained down in the plain, the majority of whom were of mixed Asiatic and European parentage.

TABLE OF THE FOREIGN POPULATION.

Adults, European and American	{	Males	48	(1 Eurasian).	
	{	Females	35	(1 Eurasian).	
Children, European and American	{	Males	9		
	{	Females	15		
Children, Eurasian...	{	Males	4		
	{	Females	8		
Japanese	{	Adults ...	{	Males	13
	{	Children	{	Males	2
			Totals, 119	31	Grand Total, 150

Two births occurred during the year; one being still-born. Two deaths took place amongst the residents of the port; one a Japanese from cholera, the other an infant from chronic diarrhoea. Of preventable diseases may be noted one case of cholera, one of malaria in a Chinese, three of tuberculosis—one European, one Chinese and one Eurasian. Several cases of mild diarrhoea were treated amongst the foreign residents and the Chinese members of the Customs, and two cases of ptomaine poisoning amongst the foreign staff of the Customs, one of which was due to the ingestion of tinned ham, the other to putrid cheese. Amongst foreign children the following cases were treated: rickets, three cases in one family—one of the cases being complicated with genu valgum. The occurrence of rickets amongst foreign children in China is interesting when compared with the comparative immunity which the native child enjoys in this direction. Flat foot and a tendency to scoliosis is rather noticeable among the chil-

dren here, due no doubt to the lack of any form of systematic exercise. The inauguration of drilling and dancing classes would help to 'set up' these young people and improve their general health. Adenoids are very common.

It is interesting to note that cases of malaria arising *de novo* in the settlement are never met with; all cases treated during the past year having been previously infected in other localities which the patients have but lately left. None of the older residents suffer from malaria, nor is the parasite present in their blood. Anopheles (*myzomia sinensis*) are fairly common in the neighborhood, but none of those examined have been found infected. Neither does malaria seem to be prevalent amongst the Chinese in the city and the surrounding country; many cases of fever diagnosed as such on microscopical examination have been found to be non-malarial. On the other hand unclassified fevers are very common, particularly at the changes of the seasons—in early summer and late autumn. Some are three-day fevers, some the seven-day type, while some are relapsing fever, pure and simple, and should not be included in the group of the unclassified except that it is often not possible to demonstrate the presence of the spirillum obermieri. In no instance has any protozoal organism been found in the body fluids in the first mentioned types. Examination of fæces also negative. The mortality of these fevers is practically nil, but they are distinguished by being followed by a tedious convalescence out of all proportion to the severity of the attack. The infective agents do not appear to be transmitted by fomites or direct contact with the sick, but seemingly act locally, as it is often noted that several cases will come from the same village, though when in hospital the disease is not transmitted by them to other inmates. This would point rather to the infective agents being carried by insects, etc. The majority of these cases have been treated at the St. Vincent's Hospital, a dispensary for indigent Chinese, under the management of the Catholic mission, but in addition a few foreigners have been treated for fevers of from three days to a fortnight in duration. These fevers were certainly neither typhoid, malaria, nor Malta fever. Symptoms consisted of headache, often quite severe, lassitude, constipation and coated tongue, pains in the back and limbs, and profuse sweatings. There was never any rash, and the symptoms were quite unlike those of influenza or dengue. Blood examination showed a leucocytosis and nothing more; convalescence usually rather tedious and requiring the aid of tonics. Roger's "saddle-back" temperature was not noticed, the morning temperature

being generally a little above normal, the evening reaching 101 to 102. Pulse rarely above 80. Foreign patients were usually able to read or otherwise pass the time in bed, but were quite done up on the slightest exertion.

Another and very interesting type of fever is one which has been described several times by practitioners in the river ports, but so far as is known its cause has not been discovered. This fever is distinguished by the appearance during its course of an urticarial rash. Three cases were treated in Kiukiang in 1909, but only one patient was a resident of the port, the other two coming from men-of-war for hospital treatment, having contracted the disease in Changsha, or its vicinity, a place where from all accounts it is rather prevalent. These patients were all foreigners. Natives are said to suffer from similar rash with fever, but the occurrence in them has not been noted in this port.

The disease commences with a feeling of being below par for a day or two. The temperature, on being taken, is found to be elevated at night from one to three degrees, rarely more, dropping to normal in the morning. With the commencement of the disease, or at all events in the course of two or three days, an urticarial rash of a giant nature makes its appearance. The individual wheals come out on any part of the body, develop rapidly into tumescent areas, 3" to 4" or more in diameter, slightly raised above the surface of the surrounding skin, dead white in colour, except in the centre, which has a pink tinge, and at the edges, which are marked by a rosy areola. They are accompanied by more or less itching and remain out for varying periods, usually for two or three hours. When fading the central portion regains the normal skin appearance first, the areola remaining visible longer, so that an effect is produced of a series of sinuous red lines. No discoloration or desquamation follows the rash. On the face the eruption takes the form of tumescence of the eyelids, lips, the skin over the malar bones, and of the nose, so that considerable, though transitory, changes may be made in the patient's physiognomy. The same areas of local oedema occur on the mucous membranes of the mouth, fauces, larynx, and nares; sometimes causing embarrassment to breathing, but never to a dangerous extent. There is little doubt that the same fleeting changes take place in the alveoli of the lungs and the mucosa of the alimentary tract. The further symptoms point

to such being the case, for most patients suffer from cough or diarrhoea, or both combined. Neither the cough nor the diarrhoea seem to have any special relation to the presence or absence of the cutaneous eruption, though some patients say that they feel better when the rash is out and, vice versa, scanty rash means more cough and gastric distress.

Auscultation and percussion of the lungs show areas of dullness and diminished intensity in the breath sounds throughout these areas; the preliminary formation of such patches being heralded by fine crepitations, not unlike those of the earliest stages of pneumonia. These areas alter in position, from day to day, the affected portions of the lungs returning to normal in the course of a few hours. Expectoration, when present, is scanty. No organisms which could be connected with the symptoms have been found in it. Pulse is slow in proportion to the height of the fever. Heart normal. Gastric symptoms, when present, may be quite acute and distressing. The tongue is coated with a thick yellowish-white fur; anorexia is pronounced. There may be either diarrhoea or constipation. If the former the stools are usually of a dysenteric type, frequent and containing blood and mucous, the passage of which is attended by a certain amount of pain and tenesmus. Examination of the stools for helminths has, so far, proved unenlightening. In one case bodies like *filaria*, but of various lengths, were found in the honey-coloured mucus from the bowel. Sheath-like bodies lay beside them. These objects were motionless when seen. Bodies and sheaths stained badly with hæmatoxylin and showed no formation. They were found in one case and on one occasion only.

The blood shows a pronounced and increasing eosinophilia, which may reach as high as 40 cent. Mononuclears are slightly increased, 6 per cent. to 8 per cent. In the early stages there is a leucocytosis, but this is replaced if the disease drags on by a leucopenia; the total whites falling to 6,000 per c.m. or thereabouts. At the same time there is usually a reduction in the red cells of a million or so in the c.m. The hæmoglobin in the above cases was not estimated, but clinically the grade of anæmia appeared less than that associated with benign malarías. No parasites of any kind were discovered in the blood, though a careful search was made of wet and dry specimens taken at all times of the day and night. An examination of the fluid from the wheals was also negative.

A clinical feature to be noted in the more severe type of case, that is to say, one which lasts longer than a fortnight, is the persistence of the fever. This is of a remittent type, normal or nearly so in the morning and rising to 101 to 103 in the evening; defervescence taking place in the early hours of the morning to the accompaniment of sweating. The pyrexia may last for a long time after the wheals have ceased to make their appearance, in fact it is rare for the latter to make their daily eruption after the end of the first fortnight.

Complete return to health is the rule, however, though in some cases it may be six weeks or longer before the temperature becomes quite normal. Convalescence is extremely slow, the patient regaining his wonted health and energy very slowly, though his appetite is usually excellent and his sleep sound. Drug treatment is extremely unsatisfactory; the most useful preparation would seem to be quinine given in moderately large doses, grs. 20 to grs. 30 daily. Other remedies are salol, calcium chloride, calomel, and salines. Santonin is usually exhibited. For the itching of the eruption ical baths are useful. Tonics are indicated during convalescence, the best of which is arsenic.

Although apparently not a fatal disorder, still the fact of its being sufficiently severe to invalid a patient for two or three months makes the elucidation of its cause a thing to be desired.

In addition the symptoms may be very misleading and give rise to a diagnosis of tubercle, typhoid, Malta fever, etc., and it is only when repeated examinations and tests are negative to these disorders that the practitioner begins to believe that he is dealing with a new and distinct entity amongst diseases.

Having analysed the histories of several cases from different places on the river, the writer puts forward the theory that there is a connection between the mud of the rivers, creeks and paddy fields and the cause of this fever. In nearly every case, and they all occurred in men, there was a distinct history of the sufferer having brought his bare skin in contact with stagnant mud a few days previously to the onset of the symptoms. Thus the cases occurred amongst sportsmen who had waded bare-legged through the paddy in the autumn or late summer, and amongst blue-jackets who for various reasons had been paddling about in the mud on the river banks.

It would appear that clothing of moderate thickness acts as an effectual bar against the action of the infective agent, for sportsmen and others who wade in the water well clad in putties or leggings seem to escape. Thus it would seem that the infective agent—bacterium, protozoon, nematode or whatnot—might be introduced into the economy through the bite of some fly or water insect, etc.

It is to be hoped that medical men will turn their attention to this interesting subject.

Several cases of sickness and some deaths occurred on board the river steamers passing through the port. Two cases of cholera were landed for treatment at the St. Vincent's Hospital. Both were treated by continuous saline infusions through a makeshift apparatus ingeniously devised by Surgeon Leslie Barford, R.N. Both died; one within twelve hours, the other on the fifteenth day from pneumonia and parotitis.

Dysentery was severe in the native city, but did not attack the settlement. It was of a particularly virulent bacillary type, and deaths were numerous. A few cases, landed for treatment from vessels in the harbour, did well under a combined ipecacuanha and saline treatment, with lavage with saline enemata.

The settlement is, on the whole, in a sanitary condition. There is too much vegetation, and the drainage system is not complete. This is to be remedied this year by the Municipal Council.

REPORT ON THE HEALTH OF CHINKIANG FOR THE SIX MONTHS ENDED 30th SEPTEMBER, 1910.

By Dr. M. URBÁNEK.

During the period about to be reported on there have been no virulent epidemics, and though out of all cases observed nearly 23 per cent. were infectious, there was no special epidemic. The fact was unusual that typhus, variola vera, diphtheria, and scarlatina lasted through the whole summer, breaking out from time to time in different parts of Chinkiang, but never provoking an epidemic. These diseases are very rarely met with in the summer, especially in the very hot months. In searching for an explanation of the cause of this continuance of the above mentioned diseases I hardly think I am far wrong in assuming as origin the camps of so many refugees and homeless beggars, who remained the whole year through round Chinkiang and carried in their wanderings from place to place infection. On three different occasions I had opportunity to ascertain that small-pox, typhus, and scarlatina existed in their camps, and the sporadic cases recurring in such different parts of the city proves that the wandering beggars carried the infection to those parts on their daily walks through the streets. The Chinese authorities ought, certainly, to take some preventative measure. Typhus is at present in Chinkiang, though not epidemic, but what will happen when again thousands of refugees, half-starved, settle down for the winter months, is hardly possible to foresee. It seems to me of very great importance to point this out, as refugees are coming to Chinkiang already, and there is every reason to believe that from the flooded area on the northern section of the Grand Canal a great number will come later on.

Appended is a table of infectious diseases as I had opportunity to attend them, partly in hospital, partly outside practice, and as I have been notified or could myself ascertain :—

Diseases.	Relation to Season.	Attended.	Notified.
Typhus	Whole year	5	10
Small-pox... ..	do.	10	24
Scarlatina... ..	do.	4	6
Diphtheria... ..	do.	4	17
Meningitis cerebro...	July	3	2
Plague	do.	1	...
Malaria	Whole year	266	401

Diseases.				Relation to Season.	Attended.	Notified.
Typhoid ...	...	...	...	Whole year	6	18
Tuberculosis ...	...	...	...	do.	103	193
Hydrophobia ...	...	...	...	do.	3	5
Anthrax ...	...	...	...	do.	...	4
Leprosy ...	...	...	...	do.	7	16
Dysentery...	...	...	...	June-Sept.	44	67
Cholera ...	...	...	...	Aug.-Sept.	14	28

These figures, naturally, cannot be in any way considered as a basis for an estimate of mortality among the populace of Chinkiang; they only refer to a quite small number of people where I have the possibility of practice or where I could obtain reliable information. Furthermore all mentioned cases are not only from Chinkiang, but from stations between Changchow and Nanking. I wish to note a few observations in regard to acute infectious diseases which I have been enabled to make this year.

Malaria.—Among the 266 cases attended, no less than 75 were of a very malignant form, characterized by continuous fever, excessive waste of tissue and rapidly setting in cachexia. In some blood slides there were a tremendous number of parasites; only in a few cases was the spleen enlarged to the rib margin. Quinine per os (4 times a day 0.5 grms.) produced practically no effect, and only injections of 0.5 quinine hydrochlor. daily was efficacious. Seven cases had very marked symptoms on the lungs, so that the first day or so pneumonia was suspected; two cases expectorated blood-stained sputum. All these cases recovered very quickly after the injections; the pulmonary symptoms disappearing after three injections. In several cases intercurrent most persistent diarrhoea (15-20 motions per day), which seemed to get worse after quinine per os. Two or three injections usually stopped the diarrhoea and the patient rapidly recovered his strength. I had neither time nor opportunity to ascertain if there were more anopheles, neither could I form an opinion as to the cause of this decided increase in malignant malaria, for in former years the only type in Chinkiang was common tertiana.

Plague.—The only real case of bubonic plague was brought to the hospital in July. As far as I could ascertain it came from the north on the Grand Canal in a junk. I hardly dared to detain the moribund patient longer than was necessary for diagnosis and I could not trace the fate of the man. As a precaution the junks on the foreshore were ordered to go for anchorage 30 feet from the shore. But this precaution was only carried out on the 1,600-foot frontage of the British Concession. Fortunately no more cases occurred.

Hydrophobia.—Hydrophobia must be of very frequent occurrence among the Chinese; three cases occurred here during the month of April and two in September. There was a precautionary attempt made by the Municipal Council in licensing dogs in the Concession and destroying those unlicensed, but the attempt failed, as the Chinese protested against this only rational method.

Anthrax.—One case of anthrax occurred in Tanyang, about 16 miles from Chinkiang, in the cattle district.

Cholera.—Cholera made its appearance very late this year, and there was hardly an epidemic. Estimation is impossible.

Dysentery.—Dysentery was much milder than last year. Considering all circumstances I presume that the local Chinese would describe this summer as a healthy one.

In the British Concession the only possible drainage scheme (i.e., surface drain) and garbage box system have at last been adopted. The Municipality has proved very energetic, forbidding one landlord to rent houses which are in a most unhygienic condition, but there still remains much to be done before all the mistakes of former years are corrected. At least there is now one modern and hygienically built house in the Concession, the new building of the Standard Oil Co.

"*Verba movent, exempla trahunt*" let us hope that this be true and will prove a stimulus to some very broad-minded absent landlord.

The Chinese city is in its old condition, but several times this summer its drains were thoroughly washed and cleaned by very heavy rainfalls. Vide appended meteorological table.

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	April.	May.	June.	July.	August.
Mean bar., 9.00 a.m.—9.00 p.m.	30.002	29.857	29.664	29.576	29.615
Mean temperature	55.3	65.6	75.3	83.2	82.1
Minimum	33.2	49.8	62.0	71.0	73.0
Maximum	82.8	90.0	99.2	101.8	100.0
Humidity per cent.	82.57	78.5	80.5	78.0	82.0
Total rain	4.675	2.314	9.310	4.278	15.655
Daily	1.620	1.414	1.840	1.610	9.655
Days of rain	11.	12.	14.	11.	11.
Hours of sunshine	127.5	129.3	116.8	190.4	134.7
Barth temperature ..	46.0	53.0	67.0	76.0	74.0
Evaporation to 16th of 1"	2.925	3.191	2.640	3.077	3.170

REPORT ON THE HEALTH OF CHANGSHA FOR THE SIX MONTHS ENDED 30TH SEPTEMBER, 1910.

By Dr. EDWARD H. HUME.

General Health of the Foreign Community.—In spite of the altered conditions of life experienced by many as a consequence of the riots, there were less cases of serious illness during the period under consideration than in the previous half year. The following cases were notified :—

Typhoid fever	...	...	...	1 case.
Acute dysentery	...	...	...	3 cases.

Two of the cases of dysentery were mild. Two additional cases of dysentery undoubtedly developed in Changsha, but did not manifest themselves until the patients had gone down river. Several minor cases of diarrhoea were observed.

At Liling, 60 miles away, there occurred a fatal case of diphtheria; the patient being an American child of three years. Antitoxin was not procurable for forty-eight hours after the commencement of symptoms, and when secured, even 39,000 units proved of no avail; the larynx being seriously involved.

Causes of Disease among Foreigners.—It is becoming more and more generally recognized that dysentery is not a disease due to *climatic conditions*, or, primarily, to a chilling of the abdomen. Dysentery is caused by recognized parasites, either animal or vegetable, which are introduced into the digestive tract through the mouth with the food. The ordinary cases of dysentery are due to certain bacilli which are introduced into foodstuffs by flies. Several of the cases alluded to could be traced directly to infection of the food by flies which were bred in cesspools adjoining foreigners' houses. During 1910 the large "blue-bottle" fly (*Musca vomitoria*) has seemed more abundant than usual.

It has been difficult to place the blame for the single case of typhoid alluded to. The patient was a nurse, accustomed to stricter hygienic precautions than the average individual, and it can only be surmised that bath water drawn from a neighboring well may have been

the cause of her illness. Her illness cannot have been in any way connected with a single night's attendance on a typhoid patient six months previous to the origin of her own illness. In the report for the previous half year mention was made of the fact that the water of most of the city wells contained much city drainage and was reeking with bacteria.

Hygienic Requirements.—The chief essentials for health, especially during the summer months are, aside from the assurance of thoroughly cooked food, means for keeping the foodstuffs from flies. Precautionary measures ought to be taken in the following order:—

1. Prevention of access for flies to their usual breeding grounds.
2. Prevention of access to houses.
3. Fly destruction within houses.
4. Assurance of sterility of food at moment of consumption.

For the attainment of these ends the following measures have been successful wherever adopted and put into practice vigorously:—

1. The proper attention to all privies and such use of disinfectants as shall make it impossible for flies to deposit their eggs in night soil. Where foreign houses are surrounded by Chinese vegetable gardens or fields, such steps are manifestly impossible, and herein lies a strong argument for the careful selection of sites for such residences. But in compounds occupied by foreigners the same methods may be adopted for the prevention of fly-breeding as for the prevention of mosquito-development. These consist in the use of suitably constructed privies, the introduction of the wet system as opposed to the dry in disinfection, and the use of kerosene on the surface of the water used, both to prevent access of flies to the nightsoil and to prevent the egress of such larvæ as may already be within. This system has already been put into practice with excellent results in Changsha.

2. Thorough screening of all houses where foreigners live. That this system, properly carried out, works well in preventing access of mosquitoes, as well as flies, is well enough known. In the single case where wire netting has been introduced during 1910 into a building in Changsha the result has been most satisfactory. The buildings were those rented by the Yale Mission Hospital, and whereas in these buildings there had been previously an annual plague of mosquitoes and flies, patients and staff were able to be entirely comfortable during the summer of 1910, even without the use of mosquito-nettings.

3. The use of suitable fly-destroying methods. Flies may be killed in a room if it is thoroughly sealed up and Persian insect powder burned within. They will also be destroyed if saucers containing a weak solution of bichromate of potash are left in conspicuous places throughout the house. If the fluid is sweetened, it will draw large numbers of flies, and while fatal to them, is practically innocuous to human beings.

4. The sterilizing of water in such a way that it shall come from the vessel in which sterilized directly to the glass of the consumer. The same is true of solid food. This means that all dishes will have to be scalded with boiling water immediately before use, allowing drainage to occur. Wiping with doubtful towels should be absolutely prohibited during the summer months particularly.

It seems desirable to re-emphasize here that all water used for infants and children's baths should either be boiled, or sterilized by the Nessfield method with an iodine solution.

Health of the Chinese Community.—There has been no more than an ordinary amount of illness through the past summer months. A few cases of true Asiatic cholera were reported; one of them being observed in the compound of a European resident. In a village about three miles to the east of the city quite a serious epidemic of dysentery was reported as having prevailed through August. Many fatal cases occurred, and the villagers became quite alarmed. With the onset of cooler weather the epidemic has died down. The introduction of thousands of troops from Hupeh province in connection with the quieting of the province after the riots in April, has brought in not a few cases of malarial fever; cases that had their origin elsewhere. However, the scant supply of *Anopheles* mosquitoes has made the spread of malaria impossible, and no more has been seen of it among Hunanese than usual.

One striking effect following the riots has been the greatly increased confidence of the people in the foreign hospitals. Where formerly there was hesitation about residing within the gates of a hospital conducted by Westerners, there has now come to be difficulty in finding room for all those that seek admission. Out-patient clinics have also been greatly increased. This result has been observed in the districts as well as in the capital city.

Schistosomiasis.—At the close of the previous report reference was made to the increasingly recognized presence of a dangerous malady caused by a *Trematode* or blood-sucking parasite. The parasite, named *Schistosomum japonicum*, was first seen by Katsurada in Japan in the year 1904. Later in the same year Catto found the same parasite in the body of a Chinese citizen of Fukien, who died in Singapore. Dr. Logan, of Changteh, was the first in China to observe this parasite, but since his discovery, it has been seen all along the Yangtze Valley from Yochow to Shanghai, as well as along the banks of the Siang river in Hunan. This parasite, often known as a fluke, inhabits the blood vessels of the intestines and mesentery, and is thence carried up into the liver, whose lobules are sometimes found stuffed with the fluke. The disease is characterized by enlargement of the spleen and liver; there is usually diarrhoea, and blood and mucus are often passed. A marked anemia sets in, and the disease is often recognized by a characteristic sallow appearance of the patient.

It is still a question as to how the fluke gains admission to the human body. It may be through the alimentary canal, or through the skin, by direct penetration. One thing is certain. Infection is most common in those whose occupation brings them close to the water. We therefore find the cases all occurring among boatmen or men that work in pools among the rice-fields. The vicinity of Yochow is an endemic area; nearly all the cases seen in Changsha having come from that vicinity. During the summer of 1910 a boy of twelve, the son of foreign parents, residents in Yochow, has been found infected with the disease. This is the first European case on record. Progress of investigation concerning this disease will be reported in later statements.

REPORT ON THE HEALTH OF TENG YUEH FOR THE HALF-YEAR ENDED 30TH SEPTEMBER, 1910.

By. Dr. N. CHAND.

I. General Health.

The general health of the natives as well as that of the foreigners was fair. The total number of the patients treated during the period under report was 1,638 (out-door 1,618, in-door 20), which is much more than ever before. The following table gives the classification of the diseases treated :—

Diseases.	Number of Patients.	
	Out.	In.
Malarial fevers	290	10
Diseases of the digestive system	242	1
" " skin	237	...
" " eye	221	...
Ulcers	117	...
Diseases of the respiratory system	63	...
Worms	54	...
Dysentery	50	1
Local injuries	47	1
Diseases of the connective tissue	40	1
" " nervous system	29	...
Syphilis	27	...
Gonorrhœa	22	5
Goitre	18	...
Tubercular diseases, including tubercle of the lung	10	...
Midwifery cases	3	...
Poisons	3	...
Leprosy	2	...
All other cases of different diseases	143	1
Total 1,618		20

Out of 20 in-door patients there were 3 deaths; two by malarial fevers and one by cirrhosis of the liver; all the remaining patients were discharged cured, except one, who was discharged relieved.

The total number of *surgical operations* performed was 48: Evacuation of abscess, 18; extraction of teeth, 9; circumcision for phimosis, 5; and other operations, 16.

II. Diseases Prevalent.

The chief diseases for which relief was afforded were, in the order of greatest prevalence, malarial fevers, diseases of the digestive system, of the skin and of the eye, ulcers, diseases of the respiratory system, worms, and dysentery.

III. *General Type of Disease, etc.*

As usual some of the malarial fever cases treated were those who returned here from the frontier districts of Burma, coming through the Shan States, which are very malarious, but besides these an unusual number of cases came under my treatment at their homes, as there was very bad malaria in Tengyueh and in the surrounding villages during the period under report.

IV. *Relation of Disease to Season, Alteration in Local Conditions, etc.*

The period reported on was the wet or summer season, and the weather was very unhealthy throughout on account of heavy rains falling on warm sunny days. The foreigners also occasionally suffered from headache and malaria, etc.

The following meteorological notes were kindly supplied to me by Mr. A. Oliver, Acting Assistant Examiner of the Custom Office, Tengyueh :—

<i>Month.</i>	<i>Thermometer. °F.</i>			<i>Rainfall.</i>
	Maximum.	Minimum.	Mean.	Inches.
April, 1910	79	51	65.18	3.97
May, "	81	59	70.26	7.71
June, "	70	65	67.25	16.65
July, "	69	64	66.47	13.24
August, "	71	65	68.00	9.10
September, "	73	66	69.39	4.48

During the period under report the maximum temperature was 96°, which was on 14th and 16th May. The heaviest rainfall for any one day was 2.64 inches, and it was on the 13th June. The wind was S. S. W. throughout the period.

Sanitary Conditions.—No special artificial method was adopted to improve the sanitary conditions of the town, but the heavy rains washed out the streets, etc.; many times very satisfactorily during the period under report.

V. *Peculiar Diseases.*

Leprosy.—During this period only two cases of leprosy were attended by me, one of whom had returned here from Mandalay (Burma), where he was one of the leading Chinese merchants. He had had this disease for the last 12 years; he said that he had tried every sort of treatment available while he was at Mandalay, but with no good result; therefore he did not like to try any more internal treatment. He was attended by me for a sloughing ulcer on the sole of his right foot, which was cured by me. The remaining one patient

was from a village near Tengyueh, who stated that he had had this disease for the last two years. He had his toes ulcerated; his toes, fingers, and hands were deformed; the face was comparatively less deformed; he was feeling anæsthesia in his extremities. He has attended the dispensary only once as an out-door patient.

Anthrax.—No man suffering with this disease came under my notice, but I saw some ponies and mules dying of it during the months of May, June, and July, 1910. The superintendent of the Civil Veterinary Department, Burma, was informed about their symptoms, who replied that the disease referred to was probably anthrax. The main symptoms were: sudden onset, loss of appetite, staggering gait, followed soon after by inability to walk, general restlessness, fever with hot nostrils, pain in the belly, which was evidenced by the cries of the animal, distension of abdomen, inability to swallow anything in some cases, and convulsions; death took place usually within 12 hours.

VI. *Epidemics.*

No epidemic, contagious or infectious disease, occurred during the period under report, except dysentery, which the Chinese said was due to the heat of the earth being rapidly drawn out by heavy rains falling on the warm and sunny days. In my opinion, besides the unhealthy weather which we had throughout the period, the unripe and rotten fruits of the summer season had much to do with the cause of this disease. Very good results were secured by treating this disease with small repeated doses of saturated solution of magnesiæ sulph., followed by some sedatives and opiates. The Chinese do not care to take any special precaution against this disease.

VII. *Miscellaneous Notes.*

The three cases shown in the list as "poisons" were of opium poisoning: two females and one male; one female recovered and one female and one male died, who were attended by me 10 and 12 hours respectively after they had eaten the opium.

In conclusion I am glad to mention that many hopeless cases had been cured with our treatment, which greatly helped to popularise the foreign treatment among the Chinese, and now they seem to have a very good faith in foreign medicines, as is proved by a marked increase in the number of patients, both out-door and in-door, treated in this dispensary during the period under review. Moreover, they are now not afraid to receive treatment as in-patients.

REPORT ON THE HEALTH OF ICHANG FOR THE SIX
MONTHS ENDED 30TH SEPTEMBER, 1910.

By Dr. ANDREW GRAHAM.

During the six months under review the foreign community of Ichang has been singularly free from serious illness. With the exception of two cases of dysentery and the ordinary minor complaints which accompany the hot season there has been little sickness. This comparative freedom from illness doubtless is due, in a measure, to the excellent site secured for most of the foreign residences. These are all outside the city, and are all away from the near proximity of native dwellings. While other ports on the Yangtze have had cholera, enteric fever, typhus, and plague, Ichang has been free of these diseases. We have seen one case of leprosy during the six months. We consider that our foreign community would be even more free from diseases were we able to control the supply of food stuffs bought from the Chinese market. There is at present no inspection of the animals slaughtered for consumption. We are largely dependent on the Chinese market for our vegetable supply, the danger of which is obvious to all who know the Chinese method of dealing with the manure applied to their fields. Another source of risk is the milk supply. Happily there have been so many deaths amongst the cows that for the time at least the supply has been cut off. The adulteration of the milk, doubtless from an impure source, was as notorious as the insanitary condition of the cow-sheds and the Chinese houses from which all the milk came. The water supply would be, if not purer to look at, at least less likely of contamination if drawn from the middle of the river. It is wonderful that not more dysentery has occurred during the recent epidemic considering the fact that all the drinking water is taken from the water's edge and from the near proximity of so many native boats.

EPIDEMIC OF RELAPSING FEVER.

During the months of April, May, June, and July a serious epidemic of this fever occurred. There were nearly one hundred cases treated in the Rankine Memorial Hospital. Those affected were nearly all engaged in the railway construction and were mostly of the coolie class. Housed as they were in mat huts, each occupied by twenty or

thirty men, the fever spread with great rapidity. There were no cases amongst the foreign community or amongst their servants. The following are some points in the clinical history of the cases treated in the hospital:—

1. *The Temperature Curve.*—Most of the cases treated were received into hospital during their first attack, and we had therefore only their statement that the fever began abruptly. In the relapses this was always the case. In about 90 per cent. of the cases the temperature ranged between 103° and 105° F., but in the remaining 10 per cent. we have records of the temperature reaching 106° and 107° F. Two cases touched 108° F. In a large percentage of the cases the temperature fell both in the invasion attack and in the relapse on the 4th or 5th day. The interval lasted from 7 to 10 days. Most of the cases had only one relapse.

2. *Other Prominent Symptoms.*—In about 10 per cent. of the cases delirium was present, and some of these showed great inclination to leave the hospital. Headache and severe muscular and joint pains were common to nearly all the cases. Epistaxis was fairly common, and in a few cases to an alarming extent. Sweating was another very prominent symptom. Vomiting in about 50 per cent. of the cases was troublesome. Enlargement of the liver and spleen was fairly constant, but not to any marked extent. The *Spirillum Obermeiri* was found in nearly all cases under treatment. They were in greatest numbers about the third day of the attack. The spirillum was usually plentiful: as many as three or four being found in one field of the microscope. The mortality we found to be very low if cases were got during the invasion attack.

3. *Treatment.*—We found that the pains and general condition were relieved in most cases by a mixture of salicylate of soda and phenacetin. The cold pack usually reduced the hyperpyrexia. During the interval we pinned our faith on strychnine, and consider that it prepared the heart for the coming strain of the relapse.

REPORT ON THE HEALTH OF TENG YUEH FOR THE HALF-YEAR ENDED 31ST MARCH, 1910.*

By Dr. N. CHAND.

I. General Health.

The general health of the natives as well as of the foreigners was good during the period. The following table gives the classification of the diseases treated :—

DISEASES.	Number of patients.	
	Out-	In-
Malarial fevers	70	2
Diseases of the digestive system	42	...
" " skin	32	...
" " eye	40	...
" " respiratory system	18	...
" " nerve system	9	...
" " generative system	5	1
" " connective tissue... ..	22	...
" " ear	6	...
Tubercle of the Lung	4	...
Ulcers	17	...
Local injuries... ..	14	1
Debility and Anæmia	12	...
Dysentery	12	...
Syphilis	15	...
Gonorrhœa	6	...
Worms... ..	14	...
Goitre	4	...
Midwifery cases	6	...
Diphtheria	3	...
Hydrophobia	1	...
All other cases	14	...
Total	366	4

There was no death among the in-door patients. Of the out-patients, as far as I know, there were the following 9 deaths : malarial fever, 3 ; diphtheria, 3 ; midwifery case, 1 ; disease of the liver, 1 ; hydrophobia, 1.

All these cases, ending in death, were too late to get the foreign treatment. For example, the hydrophobia case was attended by me in the evening, while he was under spasms, involving the muscles of deglutition and respiration, having been bitten by a mad dog 116 days before ; he died on the same night.

* This Report is printed out of order ; it should have preceded the Tengyueh Report for the Half-year ended 30th September, 1910, given on pages 94-96.

II. *Diseases prevalent.*

The most prevalent diseases treated during the period under report were malarial fevers, diseases of the digestive and respiratory systems, diseases of the skin, eye, and connective tissue, and ulcers.

A virulent form of malaria appears to exist in the low-lying valleys especially in the Shan States, between Bhamo and Tengyueh and in the Salween Vally. The Yuunanese are especially subject to this form of disease, as they accustomed to living at an altitude of from 6,000 to 4,000 feet, and below that level they cannot keep their health. The Salween has many legends to account for its bad reputation. The natives believe that a poisonous mist rises from the river, but the prevalent disease is probably a form of acute malaria.

The following is a list of *surgical operations* performed during the period under review :—

Evacuation of abscess	...	...	...	...	...	...	13
Extraction of teeth	...	...	...	...	...	...	4
Opening of gum-boil	...	...	...	...	...	...	2
Hare-lip	...	...	...	...	...	...	1
Excision of gonorrhoeal wart	...	...	...	...	...	...	1
Reduction of temporo-maxillary joint	...	...	...	...	...	...	1
Total	...	...	...	...	...	...	22

All these operations were successful.

III. *Vaccination.*

I am glad to mention that these people have now gained faith in vaccination. 54 children were successfully vaccinated and 9 cases were re-vaccinated by me during the last two months, and I hope to vaccinate about the same number of cases with a few days. The people here get their children vaccinated only during the period from 12th moon to the end of 2nd moon. During the other 9 months no vaccination is performed. There are some native vaccinators who use the foreign vaccine paste, and vaccinate a good number of children in the city and in the adjacent villages. Finally, I hope soon, these people will lose faith in their old methods of inoculation.

The period reported on was the dry or cold weather; it was healthy and temperate, with bright climate. It was cold in December and January. In February and March, strong winds blew every afternoon, causing the weather to be too dry, which predisposed to *nervous and respiratory affections*.

METEOROLOGICAL TABLE:— (Latitude 25.2° N. Longitude 98.30° E.)

MONTH.	Average Temperature.		Rainfall. Inches.
	Maximum.	Minimum.	
October, 1909	86° F.	58° F.	3.61
November "	78	47	5.86
December "	70	38	2.48
January, 1910	73	33	1.26
February "	76	37	0.52
March "	77	42	2.06

During the period under report, the coldest day was the 29th January, 1910, with the minimum temperature 28°. The heaviest rainfall was 1.68 inches on 19th November, 1909. The prevailing wind was west-south-west.

I am indebted to Mr. A. Oliver, Acting Assistant Examiner, for the above information.

Six midwifery cases, shown in the list, were all obstetric ones, and had head presentation, with the exception of one with hand presentation. All these cases were delivered by forceps quite successfully, save one, who died just after the operation was finished. She was nearly dead when I was called to attend on her, but the relatives insisted on my delivering the child, as the people here do not like a woman under labour to die without having been delivered.

IV. *Epidemics.*

No case of any epidemic, contagious or infectious disease was seen or heard of, with the exception of 3 diphtheria cases, which were all children from 3 months to 3 years old, and were living in different quarters. They all died, as I was called to attend on them when my services could be of no help.

No case of leprosy or anthrax has been seen during the period under report.

During the months of October and November, a severe plague attacked horses, mules, and cows in the city, which was, I think, anthrax; but I am not sure.

REPORT ON THE HEALTH OF WENCHOW FOR THE
HALF-YEAR ENDED 30TH SEPTEMBER, 1910.

By Dr. E. WILMOT SMERDON.

For the half-year ending 30th September the general health of the port has been very good. The foreign community, small at any time, was further reduced at the beginning of this period by some leaving for home on furlough, and during the hotter part of July to September the great majority went away to bungalows or other resorts. To this is largely due the prevailing absence of any serious illness; but the lack in no way gives an indication of the extremely irksome and depressing climatic condition, which, combined with the want of any social excitement, causes a feeling of malaise and continuous headaches and petty ailments almost to be the normal state of many.

Bowel trouble of a peculiarly chronic and recurrent type is the most frequent cause for any prolonged care. Starting with a tendency to constipation it leads on to a low colitis, with traces of blood and mucus, and only slight fever, but with tenesmus and much abdominal tenderness. Resembling occult chronic dysentery, there are, however, no amoebae found on microscopical examination.

The Chinese have been markedly exempt from an epidemic of any magnitude, Plague and cholera being unknown, and dysentery has not been so rife. This is attributable in a large degree to the unusually heavy and continuous rainfall last quarter.

In the Methodist Hospital of 120 beds the diseases most frequently met with are on the medical side, pulmonary tuberculosis (very common), conjunctival complaints, and chronic dysentery (occasionally sprue). Corresponding with these, and in some measure due to them or similar causes, we have surgically to deal with necrosis of long bones (especially femur) and cervical glands, entropion (very common), and fistula in ano.

Santonin is a routine course, varied by thymol. Quinine is the one drug that all prize, even the up-country yokel of most conservative tastes taking it as a panacea, for malarial infection is the rule. Venereal diseases are only too common and the number of primary infections by the pharynx in innocent individuals is quite pitiful. Fifty per cent

of our practice comprises ulcers of the legs and face. Thiersch-grafting for the huge ulcers on the legs of rice cultivators gives a very fair result after return to work.

Appended is a meteorological table, kindly prepared and furnished to me by Capt. A. Walker, the Harbour Master, to whom I am indebted for the trouble taken.

METEOROLOGICAL SUMMARY.

Port of Wanchow, April to September, 1910, inclusive.

MONTH.	Average Max. Temp.	Average Min. Temp.	Rainfall.
April	64.4° F.	54° F.	4.02 ins. on 16 days.
May	75.9	63.5	7.95 ins. on 18 days.
June	87.4	74.2	6.43 ins. on 11 days.
July	92.6	78.1	12.07 ins. on 13 days.
August	89.7	77.2	14.58 ins. on 17 days.
September ...	84.23	72.73	7.61 ins. on 9 days.

Giving an average mean temperature of 75° with rain every other day.

